

ENVIRONMENTAL ASSESSMENT

MAINTAINING VIABLE POPULATIONS OF WILD HORSES
ON HEALTHY RANGELANDS
IN THE ADOBE TOWN HMA IN THE RAWLINS FIELD OFFICE JURISDICTION

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- I. PURPOSE AND NEED
 - A. PURPOSE
 - B. NEED
 - C. CONFORMANCE WITH LAND USE PLAN
 - D. RELATIONSHIP TO OTHER STATUTES, REGULATIONS, OR OTHER PLANS
 - E. POLICY
- II. ALTERNATIVES ANALYZED AND A DESCRIPTION OF EACH ALTERNATIVE
 - ASSUMPTIONS COMMON TO MORE THAN ONE ALTERNATIVE
 - ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL
- III. AFFECTED ENVIRONMENT
 - A. INTRODUCTION
 - MAP 1
 - B. WILDLIFE
 - WILDLIFE SPECIES
 - THREATENED AND ENDANGERED SPECIES
 - C. CULTURAL, HISTORIC RESOURCES
 - D. WILD HORSES
 - E. DOMESTIC LIVESTOCK
 - F. VEGETATION AND SOILS
 - G. RECREATION
 - H. WILDERNESS
 - I. RIPARIAN AREAS (AND OTHER SURFACE WATER RESOURCES)
 - J. PRIVATELY-OWNED AND CONTROLLED LANDS
 - K. SOCIO ECONOMICS
- IV. ENVIRONMENTAL CONSEQUENCES
 - A. INTRODUCTION
 - B. WILDLIFE
 - C. CULTURAL, HISTORIC RESOURCES
 - D. WILD HORSES
 - E. DOMESTIC LIVESTOCK
 - F. VEGETATION AND SOILS
 - G. RECREATION
 - H. WILDERNESS
 - I. RIPARIAN AREAS (AND OTHER SURFACE WATER RESOURCES)
 - J. PRIVATELY-OWNED AND CONTROLLED LANDS
 - K. SOCIO ECONOMICS
 - COMPARATIVE DIRECT BUDGET REQUIREMENTS OF IMPLEMENTING THE ALTERNATIVES
- V. MITIGATIVE MEASURES
- VI. RESIDUAL IMPACTS
- VII. CUMULATIVE IMPACTS
- VIII. CONSULTATION AND COORDINATION
 - A. INTRODUCTION
 - B. DISTRIBUTION
 - C. LIST OF PREPARERS

APPENDIX A

SITE SPECIFIC GATHER PLAN FOR FY 2002 FOR THE ADOBE TOWN HMA AND THE AREA DESIGNATED AS I80 SOUTH WITHIN THE RAWLINS FIELD OFFICE.

APPENDIX B

LETTER TO THE PUBLIC SOLICITING COMMENTS AND ANNOUNCING TIME FRAME ASSOCIATED WITH ACTIONS AND THE DISTRIBUTION LIST FOR THE LETTER

I. PURPOSE AND NEED FOR MANAGEMENT OF WILD HORSES

A. PURPOSE

The purpose of management of wild, free-roaming horses within the Adobe Town Herd Management Area (HMA) is to comply with law and policy pertaining to wild, free-roaming horses on public lands. BLM policy addresses a range of topics including the achievement and maintenance of Appropriate Management Levels (AMLs) in HMAs within the jurisdiction of the Rawlins Field Office (RFO) in a humane, safe, efficient, and environmentally sound manner. That policy is outlined in the Rawlins Field Office Wild Horse Management Handbook (the Handbook) which incorporates all of the relevant state and national policy and direction pertaining to wild horse management on the public lands.

B. NEED

The need for management of wild, free-roaming horses is to maintain a thriving natural ecological balance (TNEB) and to preserve the multiple use relationship that exists in the areas affected by wild horses. This, in turn creates the need to establish a framework that will enable the BLM to attain and maintain AMLs within the Adobe Town HMA and to prevent the establishment of wild horse herds outside of the designated HMA. As numbers within the HMA rise above certain levels, competition for critical habitat requirements increases and leads to instances where the horses move outside the boundaries of the HMA. This relationship was presented in detail in the evaluation and analysis completed in 1994.

Section 4 of the Wild, Free-roaming Horse and Burro Act (the Act) states: "if wild and free-roaming horses or burros stray from public lands onto privately owned land, the owners of such land may inform the nearest Federal marshal or agent of the Secretary, who shall arrange to have the animals removed." Such actions must be conducted in compliance with the same laws that govern planned actions. The procedures described in the capture plan (APPENDIX B of the Handbook) may also be used to gather and remove wild horses from private lands anywhere within the RFO at the request of the landowner. The following table depicts the areas included in this analysis.

TABLE 1

AREA	PUBLIC ACRES	OTHER ACRES	AML	ESTIMATED POPULATION (2001)
ADOBE TOWN HMA	441,000	29,000	700	1740
I 80 S*	359,000	195,000	0	179
TOTAL	800,000	224,000	700	1919

** All lands south of Interstate 80 and west of Wyoming Hwy 789 with the exception of the Adobe Town HMA. The horses are not uniformly distributed throughout this entire area.*

Management is also needed to maintain the health of the public rangelands the horses and other animals depend on and to ensure that BLM activities are in conformance with 43 CFR 4180. It also enables BLM to maintain horse populations at levels that will prevent unwanted damage to state and privately-owned lands that occur within and adjacent to the HMAs.

Management is also indicated to maintain the credibility of Rawlins BLM as a good neighbor and an example of a responsible user of the public rangeland resource.

A predictable supply of healthy, adoptable horses is needed to maintain

interest in the Adopt-a-horse-or-burro Program while it continues to be the primary available means for disposition of excess horses that must be removed from the range. And while it must remain clear that adoption demand does not dictate on the ground management, the necessary relationship must be considered and nurtured.

While the analogy may be objectionable to some, removals are the equivalent of the annual harvest of a fish or wildlife population or the sale of the year's livestock production. Something other than bears, lions, disease, starvation, or human appetites replaces the historic or perhaps even prehistoric role of the predator in maintaining some semblance of balance amongst the various components of the "natural" system. In this particular case, periodic removals are directed toward achieving the required objective of a TNEB.

C. CONFORMANCE WITH LAND USE PLAN

The action is in conformance with the Great Divide Resource Management Plan (November 1990) which established the following objective for wild horse management in the Rawlins Field Office jurisdiction:

To protect, maintain, and control a viable, healthy herd of wild horses while retaining their free-roaming nature and to provide adequate habitat for free-roaming wild horses through management consistent with environmental protection and enhancement policies.

D. RELATIONSHIP TO OTHER STATUTES, REGULATIONS, OR OTHER PLANS

No other federal, state, or local plans will be affected by managing wild horses, and no other permits or authorizing actions are required. The action will be implemented under the authority of the Wild, Free-Roaming Horse and Burro Act of 1971 (the Act) and 43 Code of Federal Regulations (CFR) 4700. The processing and transport of wild horses will be conducted in conformance with all applicable state statutes.

All federal actions must be reviewed to determine their probable effect on threatened and endangered plants and animals. This process is termed Section 7 conferencing and consultation (section 7 of the Endangered Species Act). The process is described in detail in the Handbook. By letter dated 8/16/2001, the USFWS concurred with BLM determinations that the Adobe Town Wild Horse Round-up would not likely jeopardize the continued existence of the mountain plover.

Federal actions must also be reviewed to determine their probable effect on cultural and historic properties. This process is termed Section 106 consultation (Section 106 of the Historic Preservation Act). The process is described in detail in the Handbook.

43 CFR 4180 requires that all BLM management actions achieve or maintain healthy rangelands.

A specific Habitat Management Area Plan (HMAP) guides the ongoing management of the horses in the Adobe Town HMA. The HMAP contains objectives for both the horses and their habitat along with proposed management actions that will achieve those objectives. The HMAP is scheduled to be revised to current manual standards after completion of this action.

When the indicated management action is a Population Management Action (PMA) (usually gather and removal), an individual gather plan is prepared to guide that action to insure effective operation and humane treatment of the animals involved (APPENDIX A).

E. POLICY

One of BLM's objectives (43 CFR 4700.0-2) regarding wild horse management is to manage wild horses "as an integral part of the natural system of the public lands under the principle of multiple use."

"Management of wild horses shall be undertaken with the objective of limiting the animals' distribution to the herd areas at AMLs. Wild horses and burros shall be removed from private land when the landowner submits a written request to BLM for their removal" (43 CFR 4720.2-1).

Wild horse management focuses on providing habitat for the wild horses within HMAs and on maintaining the populations within AMLs.

The Handbook contains a compilation of the current policies directing wild horse management within the Field office.

II. ALTERNATIVES ANALYZED AND A DESCRIPTION OF EACH ALTERNATIVE

Prior to the completion of the analysis presented in Section IV of this document, a preliminary analysis was conducted for all alternatives to help quantify them in common terms. This preliminary analysis was limited to population demographics. This analysis utilized the population model developed for BLM by Dr Stephen Jenkins. The preliminary analysis consisted of a series of nine trials each for a period of 30 years in order to establish the most likely effect that the alternative management strategies would have on the population demographics of the wild horses and, therefore, on the identification and quantification of the environmental consequences associated with that particular alternative. In all of these analyses, the selected management strategy was employed continuously throughout the trial period and not adjusted on a year-to-year basis.

ALTERNATIVE 1: EMPLOY THE PRACTICES AND METHODS DESCRIBED IN APPENDIX A TO ACHIEVE AND MAINTAIN AML IN THE ADOBE TOWN HMA AND FOR OTHER PURPOSES AUTHORIZED UNDER THE ACT; SELECTING THE APPROPRIATE PRACTICES AND MITIGATING MEASURES ON A CASE BY CASE BASIS.

Under this alternative, the practices described in the Handbook would be employed in order to complete the action described in the Gather Plan (APPENDIX A). The purpose of the action would be to achieve and maintain the AML established by other processes for the Adobe Town HMA (700 horses). For the purpose of analysis, AML would be attained in the year 2002 and maintained thereafter by the removal of approximately 450 horses, ages five and under in 2007, 2011, 2015, and periodically thereafter. In order to achieve the AML, approximately 1700 horses would be gathered in 2002. In order to achieve and maintain the AML over a 30-year period, approximately 8900 horses would be gathered, 4850 removed, and 3950 placed in the Adoptahorse program. Horses removed for which no adoption demand existed at the time (approximately 900) would be placed in longterm facilities (sanctuaries) maintained by private parties under contract to the BLM.

ALTERNATIVE 2: DO NOT ACHIEVE OR MAINTAIN AML IN THE ADOBE TOWN HMA. EMPLOY THE PRACTICES AND METHODS DESCRIBED IN APPENDIX A ONLY UNDER EMERGENCY CONDITIONS OR IN RESPONSE TO LANDOWNER REQUESTS.

Under this alternative, the practices described in the Handbook would be employed whenever an emergency was determined to exist or whenever a request to remove wild, free-roaming horses from private lands was received. There would be no regular, scheduled individual PMAs. AML would neither be achieved nor maintained. This could be understood to be no action within the HMA, and action outside of the HMA limited to specific instances as provided by law. As this alternative is primarily reactive in nature, it does not lend itself to the finite kind of quantification possible with Alternative #1.

ALTERNATIVE 3: RELY ON PREDATION AND ENVIRONMENTAL FORCES TO ESTABLISH AND MAINTAIN SELF-REGULATING POPULATIONS

Under this alternative, no gathering would take place inside or outside of the HMA. Horse numbers would be allowed to increase until they reached levels where predation and environmental factors coupled with density-dependant adjustments in reproductive rates stabilized the populations. This would consist primarily of environmental factors as currently, mountain lions are the only predators existing in the area known to be able to effectively take wild horses. Within the HMA, there is little suitable habitat for mountain lions, and they would not be expected to increase in numbers sufficiently to control wild horse populations. Neither grizzly bears nor wolves could be expected to expand their season-long ranges into the HMA. Mountain lion (as well as the other potential predators discussed) management is the responsibility of the Wyoming Game and Fish Department (WGFD). The WGFD shares some of this responsibility with USDA Animal and Plant Health and Inspection Service, Wildlife Services (APHIS). Wolves might increase their range to take advantage of seasonal concentrations of horses under stressed conditions, but in order to do so, they would first encounter wildlife and domestic livestock in nearby areas and be subject to control by other agencies. Coyotes are common where the horses range but only take an occasional very young or weak horse under unusual circumstances. The introduction of other large predators is neither legal nor practical.

The environmental forces that would operate under this scenario would consist of two types. The first would be adverse weather, such as prolonged drought resulting in diminished drinking water, or harsh winter conditions resulting in a temporary forage deficit; the second would be reduced ability of the habitat to support the basic physiological needs of the horses on a continuing basis. The two types would interact to maximize or minimize the effects of either. For example, if a harsh winter occurred at the same time as a population peak and related habitat decline, there would be more horses in a vulnerable state and starvation-related deaths would be higher than if the same winter conditions were encountered when the population had not yet recovered from some prior event. Drinking water supplies that were adequate for a population of 700 horses could prove deficient for a significantly larger number. There would be a somewhat linear correlation between population and habitat quality. As populations increased, habitat quality would decline. When populations declined dramatically, there would be some opportunity for habitat recovery until the populations recovered. Under this alternative, there would be no response to emergency conditions nor to landowner requests. The analysis parameters are derived from actual calculations for the Adobe Town HMA. For the purpose of analysis, populations in the Adobe Town HMA would increase geometrically for 12 years, stabilizing at approximately 5,300 in the year 2012. Thereafter, populations would probably fluctuate within the range of 2,500 to 7,500 as the cycle of increase/die-off occurred. Over time, the maximum number that would trigger die-off would decrease as the health of the habitat and its ability to support horses declined. This could be understood as no action at all on the part of BLM and therefore illegal. However, the concept of self-regulating populations demands analysis, and this alternative provides the opportunity to see that apart from other actions.

ALTERNATIVE 4: ACHIEVE AND MAINTAIN AMLS IN THE ADOBE TOWN HMA BY THE USE OF FERTILITY CONTROL ALONE

Under this alternative, wild horses would be gathered in order to administer fertility control agents. The practices described in the Handbook would be employed in gathering, transporting, and processing horses. The best available technology would be employed. This consists of one intramuscular (IM) injection of porcine zona pelucida vaccine (PZP) given to reproductive aged mares. (The use of gonadotropic reducing hormone vaccine (GnRH) is not

included in this analysis as treatment and effects would most likely be quite different as this substance would have a quite different effect on behavior than PZP. Mares treated with PZP continue to ovulate and breeding behavior would continue to be a part of the behavioral picture at pretreatment levels or might even increase significantly as treated mares ovulated continually throughout the photoperiod conducive to estrous. (Mares treated with GnRH would not ovulate and breeding behavior would decrease.) This PZP treatment effectively suppresses reproduction in \pm 95% of treated mares for one seven-to-ten month period. However, for the purposes of analysis, it is assumed that the current efforts to develop a vaccine which will effectively prevent two pregnancies will be successful and that such a vaccine would be available for the life of the analysis. Treated and untreated animals would be returned to the range and the suppression of reproduction would become the primary agent for maintaining the populations at the prescribed levels. For the purpose of analysis, gathering would proceed at the rate of \pm 1,000 horses per year for the purpose of treating an average of 400 reproductive age females per year. The actual rate and intensity of gathering employed would be determined by the efficacy of agents employed and the availability of the necessary resources to complete the work. Development of acceptable, alternate delivery mechanisms or longer lasting immunocontraception per treatment could materially change the nature and consequences of this alternative. The effects of this suppression of the reproductive rate on genetic viability is not known, and so for the purposes of this analysis, it will be assumed that AMLs will not be increased as the age distribution is changed and the reproductive rate suppressed. Further, while the effects of various methods of immunocontraception on individual animals can be predicted in terms of the specific physiological response to the agents administered, the subsequent effect of the presence of varying numbers of treated animals upon the interaction of groups of animals is not known. Thus, the analysis of this alternative is necessarily limited to the probable effects on population demographics that could be predicted assuming no significant changes in the group behavior of the treated population.

Preliminary analysis determined that fertility control alone would not achieve AML within 30 years. Starting with the existing population and employing fertility control alone would result in a population after 30 years which would still exceed the AML by approximately 36%. In the short term, the population would continue to increase steadily for about seven years and then decline gradually for the next 23 years. This prediction represents the mean of nine trials at the 95% confidence level. In addition, the model revealed that there was a one-in-nine chance of experiencing a complete die-off within ten years and a one-in-nine chance of experiencing a population size of 2,300 horses within 15 years. During the course of this 30-year period, approximately 30,000 horses would have to be gathered and 12,000 females treated. Most females in the population would be gathered and treated several times during their reproductively active life. In practice, reproduction could not be completely eliminated as it would not be feasible to capture 100% (80-90% is more likely) of reproductively active females and approximately 5% of treated females do not develop sufficient immunity to prevent pregnancy. Even if reproduction could be completely eliminated, since \pm 75% of the population would be age five or less and horses typically live into their twenties and beyond, the population would still exceed the AML for some time.

If AML was first attained by any method and then fertility control alone was employed to maintain it, the demographic results would be similar, although on a somewhat smaller scale. The population would first increase for six years, then remain stable for another six years, and then gradually decline over the next 18 years. The risks of total die-off or large population increases were both noticeably less when the goal of fertility control was to maintain a population rather than reduce it; however, there was still a one-in-15 chance that either extreme could occur. During this period, about 21,000 horses

would need to be gathered in order to treat about 8,000 females. This would be in addition to the impacts associated with attaining AML.

In conclusion, fertility control alone would not effectively maintain a wild horse population and its habitat in a healthy and stable state. However, further analysis could well identify a level of fertility control which would be a responsible part of a management strategy for wild horses and their habitat in the Rawlins Field Office jurisdiction. For instance, if fertility control could be employed to reduce the recruitment rate from approximately 17% to approximately 5%, 50% of the time, the cost and benefits could be weighed against the status quo of higher removal and adoption needs.

ASSUMPTIONS COMMON TO MORE THAN ONE ALTERNATIVE

1. All alternatives assume the same configuration of the HMA and other land management areas (grazing allotments, WSA, etc).

2. All alternatives assume the same (2001 end-of-year) beginning wild horse population level, although population numbers may seem to vary in different places in this document as population estimates for other dates are also presented herein.

3. Under all alternatives, current national BLM policy regarding selective removal would be followed. The specific removal criteria are part of the site-specific, individual gather plans and are applied on a herd-by-herd and year-by-year basis. Only age and sex-related criteria are included in the analysis. No other criteria such as color or conformation are included.

4. All alternatives assume the same starting combinations of AML, active grazing preference, wildlife population objectives, and nonconsumptive habitat condition requirements. All assume full use of the active grazing preference and stable wildlife populations at or near the population objectives established for them. All assume that all of these numbers have been properly derived in accordance with the best available technology and current policies regarding their determination and application.

5. Time frames are: Immediate--zero to three years hence
 Shortterm--four to nine years hence
 Longterm--ten to twenty-one years hence

6. All alternatives would employ the following mix of services in any PMA. The gather crew would be BLM employees. The helicopter would be privately-owned and under contract to the gather crew on a per-hour basis. Saddle horses would be privately-owned and leased to BLM. Transportation equipment would be either BLM-owned and operated or rented or leased in accordance with procurement procedures. Rented or leased equipment would be under the control and direction of BLM while being utilized in PMAs. Veterinary services would be provided by private, licensed DVMs from the area on a fee-for-services basis. Veterinary consultation could be provided by APHIS vets on a cost reimbursible basis or by private practitioners on a fee-for-service basis.

7. All alternatives assume that any action carried out by the BLM will be conducted in accordance with the policies governing that action. This would include standard stipulations and mitigation measures.

8. All alternatives assume the same potentially variable time frame for completion of the action. That is that completion (initial achievement of AML) may occur anytime in the immediate time frame defined above.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

CLOSURE OF HMAS TO LIVESTOCK GRAZING

This alternative was not analyzed in detail because its significant features are contained in other alternatives. If livestock grazing was reduced or eliminated in order to increase AMLs, the AMLs would still be determined in a manner which would insure a TNEB, and the maintenance of those higher horse

populations would have effects essentially the same as Alternative 1. If livestock grazing was eliminated as a precursor to uncontrolled wild horse population increases rather than in response to them, the effects would be essentially the same as Alternatives 2 and 3.

ELIMINATION OF ALL WILD HORSES FROM THE HMAS

This alternative was not analyzed in detail because the land use planning process has affirmed that the public, in general, wishes to see the Act complied with and wishes to have healthy horses on healthy habitats within the area.

INCREASE OR DECREASE AMLS WITHIN THE HMAS

This alternative was not analyzed in detail because the ongoing monitoring of the effects of all uses on the habitat incorporates regular, periodic adjustments of the AML and other authorized uses. This was evidenced by the adjustments in AMLs and HMAS completed in 1994. This is an inherent feature of Alternative 1. Changing AMLs on this biological basis will have the same effects as described in Alternative 1, while changing AMLs on a political basis would have effects similar to those described in Alternative 3.

ALTERNATIVE TIME FRAMES FOR THE VARIOUS ALTERNATIVES

Some consideration was given to analyzing different time frames. For instance, comparing the effects of implementing Alternative 1 over a two-year rather than one-year period. It was determined that to do so would unnecessarily complicate the analysis and imply a greater degree of control over the variables identified such as weather, budgetary constraints, animal health issues, than really exists. More significant than changing the total amount of time required to complete an action would be the potential for changes in the timing of individual components of an action. An example would be utilizing a particular trap site during the period when actions could have an effect on nesting raptors. Standard operating procedures would insure that necessary mitigation was employed to prevent any adverse impacts.

III.AFFECTED ENVIRONMENT**A. INTRODUCTION**

The area covered by this analysis is within the jurisdiction of the Rawlins Field Office, Wyoming BLM. It is bordered on the south by the Colorado state line, on the east by Wyoming Highway 789, on the north by Interstate Highway 80, and on the west by the Rawlins/Rock Springs Field Office boundary. As shown in Table 1, almost one million acres of public and private lands are included in this analysis. HMAs occupy 24% of the public lands under the jurisdiction of the RFO. Areas contiguous to HMAs and potentially affected by wild horses comprise an additional 21% of the public lands under the jurisdiction of the RFO. In all, 45% of the public lands within the jurisdiction of the RFO have the potential to be affected by wild horse management decisions. Map 1 portrays the analysis area. The Adobe Town HMA contains all or portions of 14 grazing allotments. Thirteen are within the Rawlins Field office and one is within the Rock Springs Field office. The Adobe Town WSA is entirely within the HMA.

TABLE 2

ABODE TOWN HORSE MANAGEMENT AREA				
AREA NAME	BLM ACRES	STATE ACRES	PRIVATE ACRES	TOTAL ACRES
RAWLINS GRAZING ALLOTMENTS				
Willow Creek	73,622.679	836.833	1,098.048	75,557.560
Continental	24,810.110	2.152	40.108	24,852.370
Red Creek	32,476.186		206.164	32,682.350
Sand Creek	29,922.910			29,922.910
Rotten Springs	20,991.910	38.968		21,030.878
Grindstone Springs	8,486.346	80.084		8,566.430
Adobe Town	30,886.440	371.360		31,257.800
Powder Mountain	8,078.054	717.405	1,027.121	9,822.580
Little Powder Mountain	16,105.172	824.571	289.667	17,219.410
Crooked Wash	7,199.023	141.507		7,340.530
Hiawatha tri-district* Maneotis Crooked Wash	7,700.303	644.640	41.517	8,386.460
Cow Creek	62,751.576	2,135.921	1,367.043	66,254.540
Espitalier	23,713.060	347.307	684.863	24,745.230
Corson Springs	21,020.092	639.288	229.950	21,889.330
TOTAL	367,763.861	6,780.036	4,984.481	379,528.378
ROCK SPRINGS GRAZING ALLOTMENTS				
ROCK SPRINGS *	73,715.49 3	1,278.423	15,641.784	90,635.700
TOTAL	73,715.49 3	1,278.423	15,641.784	90,635.700
TOTAL FOR HMA	441,479.3 54	8,058.459	20,626.265	470,164.078

* Only the portion inside the HMA

Critical elements of the human environment (USDI-BLM 1988) and their potential to be affected by the Proposed Action and alternatives must be considered. The ten elements listed below are not affected and will not be analyzed or discussed further in this document.

- Air Quality
- Prime and Unique Farmlands
- Wild and Scenic Rivers
- Water Quality, Surface/Ground
- Wastes, Hazardous or Solid
- Floodplains
- Wetlands
- Native American Religious Concerns
- Environmental Justice

B. WILDLIFE

GENERAL WILDLIFE SPECIES

Based on observation records from the Wyoming Game and Fish Department (WGFD) and the Wyoming Natural Diversity Data Base (WNDDDB), as well as range and habitat preference records from the BLM RFO, there are 60 mammal species that may occur in the Adobe Town HMA. Predator species known to occur or potentially occurring in the area include the coyote, red fox, racoon, ermine, long-tailed weasel, badger, western spotted skunk, mountain lion, and bobcat (Clark and Stromberg 1987, WGFD 1992). Lagomorph species include desert cottontail, mountain cottontail, and white-tailed jackrabbit. There are numerous species of squirrels, mice, voles, chipmunks, gophers, shrews, and bats that may occur throughout the Adobe Town HMA. In addition, beaver, muskrat, bushy-tailed woodrat, and porcupines have the potential to occur in the HMA (USDI-BLM 1999).

Based on range and habitat preference, two amphibians and five reptile species are likely to occur within and adjacent to the Adobe Town HMA. Amphibian species include the tiger salamander and Great Basin spadefoot, which occur primarily in and adjacent to aquatic habitats. Reptile species include the sagebrush lizard, eastern short-horned lizard, Great Basin gopher snake, wandering garter snake, and prairie rattlesnake (USDI-BLM 1999; Baxter and Stone 1998).

Bird species potentially occurring in the Adobe Town HMA include the common nighthawk, Say's phoebe, western kingbird, horned lark, swallows, black-billed magpie, common raven, American crow, rock wren, mountain bluebird, vesper sparrow, lark bunting, McCown's longspur, red-winged blackbird, western meadowlark, Brewer's blackbird, common grackle, and brown-headed cowbird. In riparian habitats, wading shorebirds that may occur within and adjacent to the Adobe Town HMA include the great blue heron, snowy egret, black-crowned night heron, American avocet, killdeer, and spotted sandpiper. Waterfowl species that may occur in the area include pie-billed grebe, American coot, Canada goose, mallard, green-winged teal, northern pintail, blue-winged teal, northern shoveler, gadwall, American wigeon, common merganser, and ruddy duck (USDI-BLM 1999). Numerous raptor species have historically nested, or may nest in the future, in the area, including the golden eagle, prairie falcon, red-tailed hawk, and kestrel.

The project area contains mule deer, antelope, and elk crucial winter range. The majority of this range lies along the southern border along the Colorado and Wyoming state line. Some antelope and mule deer crucial winter range lies to the east and west of Highway 789, which runs north out of Baggs, Wyoming. In addition to crucial winter range, there is year-long range and migration

corridors for these species.

Several known greater sage-grouse leks are located in the project area. In addition to leks, there is associated nesting habitat within and adjacent to the HMA.

ENDANGERED, THREATENED, PROPOSED AND BLM-WYOMING SENSITIVE SPECIES

Fifty-seven endangered, threatened, proposed and BLM-Wyoming state sensitive wildlife species may be found, or have the potential to be found, within the HMA. There are 20 T&E species of which 18 are either not found in the project area or the project would not effect the species (i.e., Colorado River and North Platte River species). There is one endangered species and one proposed species in the project area. There are 37 BLM Wyoming state sensitive species, 15 of which have the potential to occur in the project area. Informal consultation and conferencing with the U.S. Fish and Wildlife Service (Service) in Cheyenne, Wyoming, will occur concerning these species.

The black-footed ferret is an endangered species and is considered one of the rarest and most endangered mammals in North America. This species receives full protection under the Endangered Species Act of 1973 (P.L.93-205). The original range of the black-footed ferret corresponded closely with the prairie dog, extending over the Great Plains area from southern Canada to the west Texas plains, and from east of the 100th Meridian to Utah and Arizona. The close association of black-footed ferrets and prairie dogs is well documented. The project area contains white-tailed prairie dog colonies and complexes which provide both a food source and shelter for the black-footed ferret (USDI-BLM, 1984). Projects will not be implemented within 50 meters of an existing prairie dog town; therefore, implementing the Adobe Town Gather Plan may affect, but is not likely to adversely affect, the black-footed ferret.

The Service proposed listing the mountain plover in February 1999 as a threatened species, without critical habitat, under authority of the Endangered Species Act of 1973 (ESA). The mountain plover is a bird of shortgrass prairie and shrub-steppe landscapes at both breeding and wintering locales (USDI-FWS, 1999b). The HMA contains potential habitat for this bird. Nest sites are usually found in areas where the vegetation is less than 10 cm in height, in areas that are 30% or more bare ground, and rarely near water. The birds often nest in areas that are heavily grazed by livestock and/or prairie dogs. Projects that contain potential mountain plover habitat will include the necessary mitigation required to reduce impacts to the bird; therefore, there will be no jeopardy to the mountain plover as a result of implementation of the actions under consideration, provided the prescribed mitigation practices are implemented.

Implementing wild horse management practices in the Adobe Town HMA would have no effect on 18 species which include 14 fauna: bald eagle; Canada lynx; Colorado River species-Colorado pikeminnow, humpback chub, bonytail chub, razorback sucker; North Platte River species-least tern, pallid sturgeon, piping plover, whooping crane, and Eskimo curlew; Preble's meadow jumping mouse; Western boreal toad; and Wyoming toad and four flora: Ute ladies'-tresses, Colorado butterfly plant, western fringed prairie orchid, and blowout penstemon. The Service has concluded that these 11 species and associated habitat are not located within or adjacent to the HMA and, therefore, would not be affected by wild horse management practices in the HMA. Although the North Platte River species are not located within the Rawlins Field office area, they are included in the RFO T&E species list due to potential impacts to the species from water depletion projects. The 14 fauna and four flora species that are analyzed for, and would not be affected by, the wild horse management plan and associated actions include:

Fauna

- (1) Bald eagle: this species is found in coniferous, cottonwood habitats near large rivers; no nests are known to occur in the HMA at this time.
- (2) Canada lynx: this species is found mostly in forested areas. Although there is the potential for lynx to cross the desert between mountain ranges, the project in general should have no effect on these species.
- (3) Colorado squawfish: this fish was listed as endangered in 1967 and is the largest cyprinid fish (minnow family) native to North America. The decline of the fish can be closely correlated with the construction of dams and reservoirs during the 1960s, the introduction of nonnative fish, and the reduction of water flow in the Colorado River system. Although the Adobe Town HMA lies within the Colorado River system, there will not be any water depletions as a result of implementing this project; therefore, there is no effect on this species, as well as the humpback chub, razorback sucker, and bonytail chub, as a result of implementing this action.
- (4) Humpback chub: this fish was listed as endangered in 1964, it inhabits narrow, deep canyon areas and is relatively restricted in distribution. Although this fish has been regularly found dispersed in the Green and Yampa Rivers, the only major populations of this chub known to exist in the upper Colorado basin are located in Black Rocks and Westwater Canyons of the Colorado River.
- (5) Bonytail chub: little is known about the biological requirements of the bonytail chub, as the species greatly declined in numbers in the upper basin shortly after 1960. Until recently, the Service considered the species extirpated from the upper basin; however, a specimen which exhibited many bonytail characteristics was collected prior to 1992, possibly indicating that a small extant population exists. Large river reaches in the Colorado River are probably used by this species.
- (6) Razorback sucker: this fish was listed as endangered in Colorado in 1979. The current distribution and abundance of the razorback suckers have been significantly reduced throughout the Colorado River system. The largest population of razorback suckers in the upper Colorado River basin is found in the upper Green River and lower Yampa River. Specific information on biological and physical requirements of the razorback sucker is very limited, and habitat requirements for juvenile fish are also unknown (Tyus, 1989, USDI-FWS, 1992).
- (7) Whooping crane: this species nests at Wood Buffalo in Canada in the spring and summer and winters in and near the Aransas National Wildlife refuge in Texas; the birds migrate through Nebraska twice a year. During both the spring and fall migrations the birds use the North Platte River and wet meadows to obtain food for survival and reproduction. Streamflow depletions to the North Platte River system may cause impacts to this species; however, these birds are not located within the HMA.
- (8) Least tern: this species nests on sandbars and at sand and gravel pits from the Missouri River to North Platte, Nebraska. These

birds nest in areas with less than 20% vegetation. Streamflow depletions to the North Platte River system may cause the destruction and or modification of nests which may impact the birds; however, these birds are not found within the HMA.

- (9) Piping plover: this species nests on sparsely-vegetated sandbars, sand and gravel spoil piles, reservoir shorelines, and alkali wetlands within the North Platte River system. Streamflow depletions to the North Platte River system may contribute to the decrease in the range, distribution, and reproductive success of the plover; however, these birds are not located within the HMA.
- (10) Pallid sturgeon: the range of this species encompasses the Missouri River; the lower reaches of the Platte, Kansas, and Yellowstone Rivers; and the Mississippi River below the confluence with the Missouri River. Streamflow depletions to the North Platte River system may destroy and alter habitat that affects reproduction, growth, and survival of the fish; however, these fish are not located within the HMA (USDI-FWS, 1996).
- (11) Eskimo curlew: this species nests within the wetlands associated with the North Platte River system.
- (12) Preble's meadow jumping mouse: this species is located within and adjacent to riparian habitats, however, there are no Mouse Protection Areas (MPAs) or Potential Mouse Protection Areas (PMPAs) located within the HMAs. These areas are designated by the U.S. Fish and Wildlife Service (Service). These are riparian areas where the Service has either found a mouse or has identified as being potential habitat for the mouse.
- (13) Western boreal toad: this species inhabits riparian habitat located in areas above 7,500 feet in elevation adjacent to the Medicine Bow National Forest; this habitat type is not located within the HMAs.
- (14) Wyoming toad: this species' distribution is located within 30 miles of Laramie, Wyoming, specifically Mortenson Lake and the Hutton Lake National Wildlife Refuge; this restricted area is not located within the HMAs.

Flora

- (1) Ute ladies'-tresses: this species is found in habitats above 7,000 feet in elevation in Albany, Goshen, Niobrara, and Laramie Counties; there are no Category 1, Category 2, or Category 3 locations found within the HMA.
- (2) Colorado butterfly plant: this species is found in southeastern Wyoming, northcentral Colorado, and extreme western Nebraska; there are no mapped locations of this plant within the HMA.
- (3) Blowout penstemon: this species is located in sand dunes and disturbed areas south of the Ferris Mountains which are well removed from the HMA.
- (4) Western prairie fringed orchid: this species is located within the North Platte River system.

There are 15 BLM-Wyoming state sensitive species that have the potential to occur within the Adobe Town HMA. These species include 12 fauna and three flora. The fauna include three mammals-- dwarf shrew, white-tailed prairie

dog, and swift fox; and nine birds--peregrine falcon, sage thrasher, loggerhead shrike, Brewer's sparrow, sage sparrow, ferruginous hawk, burrowing owl, peregrine falcon, and northern goshawk. The flora include the cedar rim thistle, Gibben's beardtongue, and Nelson's milkvetch.

C. CULTURAL, HISTORIC RESOURCES

Site types typically encountered in the HMA include prehistoric open camps, prehistoric lithic scatters, historic period trash associated with the ranching industry, and historic period trails and roads. Cultural resource studies to support wild horse capture will follow the state protocols for the BLM's National Programmatic Agreement. For most trap sites, this will not require individual cultural clearances as there will be no permanent features and the amount of use and associated disturbance will be limited to the equivalent of three days or less use. If sites are to be employed that will receive greater use than that, then the field office archeologist will determine the appropriate cultural resource studies to be undertaken. In most cases this would consist of a Class III cultural resource inventory in the area where the horse trap will be located. A report would be written on that inventory and a copy sent to the Wyoming State Historic Preservation Officer. The current increased gas development in the area is generating additional data and experience concerning the cultural and historic resources of the area, which may effect future wild horse management actions. The presence of wild, free-roaming horses in the Adobe Town area is, itself, considered by many professionals and publics alike to be an important part of the historical character of the area.

D. WILD HORSES

The most likely effects of a particular course of action on wild, free-roaming horses on public lands must be considered in at least three related contexts. These are:

- Individual animals
- Local population or herd
- Species at large

With respect to those three contexts, wild, free-roaming horses in the Rawlins Field Office can be described as follows:

Individual Animals

Within the analysis area, there are 1919 (end of 2001 population estimate) horses within or near the HMA. The Handbook contains information regarding color, other physical characteristics, and genetic nature of these individuals. The information in the Handbook reflects the best current information on horses in the HMA. The Gather Plan also contains information regarding herd characteristics on page 15-16.

Within the HMA, the following local subpopulations are identified:

TABLE 4

HMA	AML	INDIVIDUAL LOCAL SUBPOPULATIONS
Adobe Town	700	Corson Springs Espitalier Spring Greasewood Flats Sand Creek Willow Creek Cedar Breaks Hangout Continental Monument Valley

Adobe Town horses are part of the species at large as represented in the following table:

TABLE 5

	1971 POPULATION	AML	2000 EOY POP
BLM-WIDE	~17,000	~27,000	43,629
WYOMING	<5,000	3153	7,615
RAWLINS	1,235*	920	2,576
ADOBE TOWN	600	700	1,500

* This number is difficult to develop exactly as administrative boundaries have changed in the intervening years.

METAPOPOPULATIONS

Background

From the standpoint of genetic viability, the required level of exchange of animals and the related introduction of new genetic material is not high. In small populations of less than 150 animals, the introduction of one or two competent breeding animals per generation (approximately 10 years) will ensure the maintenance of the genetic resource. Thus, to be members of the same metapopulation, individual animals need not experience frequent, large-scale contact with one another. See EA# 030-EA0-037 page 17-19 for a detailed description of metapopulations within the area. A recent report by Dr Gus Cothran showed that, in genetic terms, wild herds that had been sampled fell within the observed ranges of heterozygosity for domestic breeds.

Metapopulation

Horses in the Adobe Town HMA are part of the Stateline metapopulation, as illustrated by the following table.

TABLE 6

HMA		METAPOPOPULATION		HMA(S) IN THE METAPOPOPULATION	TYPE of INTERACTION	POINTS OF CONTACT
NAME	AML	NAME	AML			
ADOBE TOWN	700	STATELINE	1250	ADOBE TOWN SALT WELLS SAND WASH (co)	Male migration, female exchange	Haystacks, Alkali, Greasewood, Sand Creek, Powder Wash

E. DOMESTIC LIVESTOCK

Domestic livestock are authorized to use the public lands under the authority of the Taylor Grazing Act, as amended. Livestock belonging to specific livestock operators are authorized to use specific areas of rangeland (grazing allotments) for specified periods of time in specified numbers. Thirteen of the 588 grazing allotments in the Rawlins Field Office jurisdiction occur within the HMA. In all cases, the grazing allotment and the authorization of livestock use predate passage of the Wild, Free-roaming Horse and Burro Act.

The rangelands in the HMA provide seasonal grazing for livestock (cattle and sheep). Wherever domestic livestock are authorized to use the public lands,

range improvements are present. These range improvements are operated and maintained by the livestock operators, and they all affect wild horses. Fencing is primarily used to keep livestock in proper allotments during specified seasons of use. Livestock water is provided by springs, wells, intermittent and ephemeral streams, pipelines, and reservoirs. Sheep use snow in the winter as a water source. Sheep grazing in the HMA is all within the winter period. Cattle grazing is about evenly distributed amongst the seasons. The overall decline in the range sheep industry has resulted in a low and variable rate of actual use by sheep operators. Cattle use levels have been fairly constant in recent years. The following table depicts the current status of livestock grazing in the HMA.

TABLE7 ADOBE TOWN HMA LIVESTOCK PREFERENCE					
Grazing Allotment	Allot. #	Number of Operators	Active Preference	Type use	Seasons and Dates
ADOBE TOWN	10502	1	1820	Sheep	Winter (10/1-2/28)
CONTINENTAL	10506	1	2830	Cattle	Summer (5/1-10/31)
CORSON SPRINGS	Administered by Rock Springs BLM				
COW CREEK	10509	1	2629	Cattle	Summer (5/1-11/30)
				Sheep	Winter (10/16-4/20)
CROOKED WASH	10510	1	87	Cattle	Summer (6/1-10/31)
ESPITALIER	10511	1	2775	Cattle	Summer (5/1-11/30)
GRINDSTONE SPRINGS	10512	1	413	Sheep	Winter (11/1-2/28)
LITTLE POWDER MOUNTAIN	10513	3	642	Cattle	Summer (5/1-10/31)
			1341	Sheep	Fall, Spring (11/11-12/15, 3/16-4/30)
MANEOTIS CROOKED WASH	Administered by Craig, CO BLM (Hiawatha Tri-District)				
POWDER MOUNTAIN	10519	1	855	Cattle	Summer (4/1-10/31)
				Sheep	Spring (4/1-4/5)
RED CREEK	10521	1	2612	Cattle	Summer (5/1-10/31)
				Sheep	Winter (11/1-4/30)
ROTTEN SPRINGS	10523	3	622	Cattle	Spring (4/1-5/30)
			145	Cattle	Summer (5/1-10/17)
			661	Sheep	Winter (12/1-3/31)
SAND CREEK	10524	1	2839	Sheep	Winter (11/15-4/10)
				Cattle	Winter (12/1-2/28)
WILLOW CREEK	10528	1	5362	Sheep	Winter (11/1-2/28)
ROCK SPRINGS	Administered by Rock Springs BLM				
TOTAL		19	25,001		

F. VEGETATION AND SOILS

Plant communities are very diverse in this large area, reflecting the diversity in soils, topography, and geology found there. The most abundant plant community in this HMA is sagebrush/grass. Other plant communities present are: desert shrub, grassland, mountain shrub, lentic riparian grass/sedge, limber pine woodlands, juniper woodlands, and a very few aspen woodlands. Needle and thread, Indian ricegrass, bluebunch wheatgrass, western wheatgrass, junegrass, mutton bluegrass, and threadleaf sedge are the predominate grasses and grass-like species. Wyoming sagebrush, black sagebrush, bud sage, salt sage, fourwing salt bush, greasewood, bitterbrush, and mountain mahogany are important shrub species.

The majority of the area has not been surveyed for noxious weeds. Overall, the surveyed areas are mostly noxious weed free. The known populations are mostly associated with oil and gas development and occur along roads and pipelines. There are several annual weed species in the area which are also mostly associated with oil and gas development. Noxious weed species known to occur in the area include: Russian knapweed, hoary cress, houndstongue, Canada thistle, and saltcedar. Weedy species occurring include: henbane, halogeton, Russian thistle, gumweed, dock, goosefoot, and assorted mustards. Current noxious weed mapping can be viewed at the Rawlins Field Office.

The soils in the HMA are highly variable in depth and texture. Generally, the western two-thirds are a mix of sandy soils with high wind erosion potential and clayey soils with high water erosion potential, low bearing strength and varying amounts of salts. The eastern third is more loamy, in general with moderate erosion potential. More specific soils information can be found in the draft soil surveys located in the BLM files in the Rawlins Field Office.

G. RECREATION

Although demand is not high, some members of the public enjoy seeing wild horses roaming free. Both residents and nonresidents occasionally make special trips to the RFO to view wild horses in their natural environment. Other recreation in the HMA is quite dispersed with the greatest amount occurring during the hunting seasons for the various game animals and birds. Primary recreational activities in the area include: hunting for pronghorn antelope, mule deer, upland game birds, coyotes, and small game; camping, hiking, rock hounding, photography, wildlife and wild horse viewing, off highway vehicle (OHV) use and sightseeing.

No developed recreation sites exist within the HMA.

H. WILDERNESS

Adobe Town Wilderness Study Area (WSA), encompassing 85,710 acres between the Rawlins and Rock Springs Field Offices, lies within the HMA. Until it is designated wilderness or released from further consideration by Congress, it is managed under the Interim Management Policy (IMP) for lands under wilderness review. Wild horses are considered an important attribute of the Adobe Town WSA. Under the IMP, WSAs are managed to preserve their wilderness character (naturalness, solitude, and opportunities for primitive recreation) and suitability for designation as wilderness. Fundamental to this preservation is prohibition of new surface disturbance or permanent structures so that the WSA retains the character of an area untrammelled by man. If designated wilderness, the WSA would be managed in accordance with the Wilderness Act of 1964.

I. RIPARIAN AREAS (AND OTHER SURFACE WATER RESOURCES)

Riparian areas are very limited in nature and extent within the HMA. This adds to their importance. Within the HMA, as elsewhere in the RFO jurisdiction, riparian areas are extremely important components of the landscape, providing essential habitat requirements to a wide variety of

consumptive and nonconsumptive uses of the public lands. Included are forage, cover, water, breeding and rearing areas, and numerous essential hydrologic functions.

Riparian areas are important enough to warrant special policy and management considerations. The BLM policy with regard to riparian areas on public lands under its jurisdiction is for all riparian areas that are not currently properly functioning to be changed to proper functioning condition through application of appropriate management and to ensure that riparian areas that are properly functioning are maintained in their present condition.

Within the Adobe Town HMA, water sources are sparse. Stream segments with perennial flow characteristics are rare and often have upstream and downstream segments that are ephemeral. Commonly, duration of streamflow is ephemeral; streams flow only in response to precipitation events and spring snowmelt.

It must also be noted that early settlement concentrated in these limited areas. In addition to their natural values, riparian areas often are rich in historical and cultural values. A large percentage of the total riparian resource within the HMA is privately-controlled.

General Description of the Physical Hydrologic Regime for the Adobe Town HMA

The HMA is completely contained within the Colorado River Basin via the Little Snake River drainage.

Water Balance

Precipitation ranges from 8-18 inches per year in the HMA. Net potential evapotranspiration is 20-22 inches, resulting in a net annual water balance (deficit) of 2-14 inches. This makes the relative lack of abundance of water in the HMA a critical limiting factor for animal survival.

Streamflow

The majority of the streams in the HMA are ephemeral in nature, transporting water only in response to runoff from storm events. These ephemeral drainages do not have active flow for long enough to develop riparian vegetation communities. A few isolated stream segments have some perennial flow and support small riparian vegetation communities. These are quite limited and typically associated with springs and seeps that are widely distributed along these otherwise desert channels.

Shell Creek, in the western portion of the HMA has some reaches with perennial flow in most years, and a substantial riparian community and associated terraces, although the percent of the stream channel that is on public land is small (less than two miles through the entire creek length). Springs form on the east side of the Kinney Rim and result in isolated lentic riparian areas that total less than 20 acres. Similarly, lentic riparian areas develop along the north face of the Powder Rim. Channelized flow downstream of these springs and seeps typically continues for less than 1/16th mile before infiltrating and being lost to subsurface flow.

The Sand Creek drainage, including Willow Creek and Skull Creek, is the most extensive in the HMA. It is primarily ephemeral with many impassable crossings during spring run off and after the violent thunderstorms that can occur throughout the summer season. Horses routinely dig in the deep sands to locate and perpetuate water sources that would otherwise be unavailable to them or to other animals.

Riparian Assessment

The BLM method for determining the condition of riparian areas is named Proper Functioning Condition (PFC). It is conducted by an interdisciplinary team composed of professional specialists employed by the land management agency.

Thus, Proper Functioning Condition is a desirable condition and the name of a federal inventory procedure. Riparian areas are said to be *proper functioning* if adequate vegetation, landform or woody debris are present to dissipate water energy associated with high stream flow.

A General Description of the PFC inventory

Proper functioning condition is an interdisciplinary inventory to assess the condition of riparian areas. An attempt is made to broaden the team that conducts the assessment by ensuring that each team member represents a different specialty. The rating falls into three categories, Proper functioning, Functioning at Risk, and Non-Functioning. The Functioning-at-Risk category is subdivided to reflect trend in condition, either up, down, or not apparent. This effectively increases the possible number of rating categories to five.

Properties of Properly Functioning Riparian Areas

A properly functioning riparian area normally exhibits several distinct characteristics that are desirable and assist in water storage, maintenance of channel stability, and improvement of water quality. Characteristics are: 1) Purification of water by removing sediment; 2) Reduction in the risk of flood damage by storing water (attenuates the hydrography); 3) Reduces channel erosion; 4) Increases baseflow of streams due to slow release of stored water; 5) Supporting plant and wildlife diversity; 6) Water forage and shade for livestock; and 7) Increased recreational opportunities (BLM 1993).

Currently, within the HMA, lotic interdisciplinary PFC has been completed on 1.2 miles of stream. The results are summarized in table 8. Lentic PFC has been completed on 21.5 acres. While this may seem small in relation to the overall size of the HMA, such is the nature of the relationship of riparian areas to the landscapes within which they occur. Individual sites are often less than an acre in size. The results are summarized in table 9.

Table 8. Current status of lotic riparian PFC inventory on **public land** in the Adobe Town HMA.

Herd Management Area	Proper Functioning Condition Rating				
	Proper Functioning (mi)	Functioning at Risk Trend Upward (mi)	Functioning at Risk Trend not Apparent (mi)	Functioning at Risk, Trend Downward (mi)	Not Functioning (mi)
Adobe Town	0.0	0.125	1.125	0.0	0.0

Table 9. Current status of lentic riparian PFC inventory on **public land** in the Adobe Town HMA.

Herd Management Area	Proper Functioning Condition Rating				
	Proper Functioning (ac)	Functioning at Risk Trend Upward (ac)	Functioning at Risk Trend not Apparent (ac)	Functioning at Risk, Trend Downward (ac)	Not Functioning (ac)
Adobe Town	1.5	5.0	5.0	7.5	2.5

Other Surface Water Resources

A significant portion of the HMA (>60%) lacks reliable, season-long water sources. This area is, because of this characteristic, important winter range to wildlife, wild horses, and domestic livestock. Water in this area consists of natural, ephemeral stream flows, widely scattered springs and seeps, and a few very old reservoirs. Most of these reservoirs are located at springs or seeps and could be classified as spring developments. There are no wells or pipelines such as are most often associated with season-long livestock operations. These characteristics combine to limit the carrying capacity of the area for season-long use by any kind of grazing animal to much less than could be supported by the available forage resource. (Evaluation and EA# 122, pgs 6-9.)

J. PRIVATELY-OWNED AND CONTROLLED LANDS

TABLE 10

HMA	PRIVATELY CONTROLLED	PERCENT OF HMA
Adobe Town	29,000	6.1%

Privately-owned or controlled lands comprise 6.1% the HMA. In addition to their proportionate contribution to the forage and space requirements for all the animals that utilize the HMA, a disproportionately high share of the reliable water sources in the HMA occur on these lands.

K. SOCIOECONOMICS

The other uses of the public land within the HMA yield a variety of direct and indirect economic benefits, and the public rangelands are an important aspect of the sense of place that is the essence of the West. For the purpose of this analysis, the regional and national impacts are not quantified. Locally, the analysis area serves many purposes to the local, regional, and national populations. The primary direct effects are local in nature. As with other values/effects, the socioeconomic values need not be mutually exclusive. Maintaining a mix is consistent with the direction of the Act to maintain the multiple use relationship that presently exists within the areas. The following list represents the multiple use relationship that currently exists within and adjacent to the HMA.

PUBLIC LAND USE	ECONOMIC VALUES	CULTURAL VALUES
Wild horse habitat	recreation, adoption	lifestyle, character
Livestock raising	meat, fiber, jobs	lifestyle, character
Big game hunting	meat, recreation, jobs	lifestyle, self reliance
Dispersed recreation	indirect expenditures	lifestyle, freedom
Energy Production	royalties, employment	lifestyle, independence

IV. ENVIRONMENTAL CONSEQUENCES

A. INTRODUCTION

This environmental assessment (EA) focuses on the impacts that the alternative management strategies will have on wildlife, cultural resources, wild horses, domestic livestock, wilderness, recreation, soils and vegetation, riparian areas, recreation uses, socioeconomics, and private lands and interests in and adjacent to the HMA in the three timeframes described earlier. Wildlife, livestock, and wild horses all depend on the forage and habitat in the HMA and would be affected by the management of wild horses. Impacts of the various alternatives upon the habitat and other uses and users of the habitat are primarily a function of scale (numbers of horses) and timing. One hundred horses will have a similar effect on their surroundings be they bay or gray, 50% or 60% female, average age three or 12, genetically viable or not. Impacts to individual animals will primarily consist of an event either happening or not. Those impacts would be essentially the same if the event occurred tomorrow or one year from tomorrow.

Impacts to the herds and to the species, on the other hand, can be much more complex and elusive. As alternative methods are identified for the attainment of some of the actions, comparative differences in the probable effects of the alternative methods are described.

The analysis is presented in a comparative format with the effects of each alternative on each of the components of the affected environment. The summary tables use this convention:

Very Positive Impact	++
Slightly Positive Impact	+
No Impact	0
Slightly Negative Impact	-
Very Negative Impact	--
Analysis Inconclusive	X

ENVIRONMENTAL IMPACTS ON SPECIFIC COMPONENTS OF THE ENVIRONMENT

B. WILDLIFE

General Wildlife Species

The following impacts may occur to wildlife species under the Proposed Action, Alternative 1, and Alternative 4. There would be no wild horse gatherings implemented in Alternatives 2 or 3; therefore, impacts to wildlife would not occur under those alternatives. Gathering wild horses, whether it be for adoption, emergency control, and/or fertility control, involves setting up wild horse traps, using saddle horses and helicopters to gather the horses, and trucks to transport them to a holding facility in preparation for adoption.

To reduce impacts to any raptor species nesting in the Adobe Town HMA, construction and other activities potentially disruptive to nesting raptors would be prohibited during the period of February 1 through July 31 for the protection of nesting raptors.

To reduce impacts to greater sage-grouse in the Adobe Town HMA, construction and other activities potentially disruptive to strutting and nesting greater sage-grouse will be prohibited between March 1 and June 30 for the protection of greater sage-grouse nesting areas.

Construction and other activities potentially disruptive to wintering wildlife would be prohibited during the period of November 15 through April 30 for the protection of, as well as reduce impacts to, antelope, mule deer, and elk using crucial winter range in the HMA.

Threatened, Endangered, Proposed, and BLM-Wyoming Sensitive Species

The project area contains potential mountain plover habitat, a proposed threatened species. To reduce impacts to mountain plover nesting in the Adobe Town HMA, construction and other activities are prohibited during the reproductive period of April 10 to July 10 for the protection of breeding and nesting mountain plovers. This should prevent impacts to the mountain plover.

The project area contains prairie dog towns that may qualify as potential black-footed ferret habitat. Projects will not be located within 50 meters of any active prairie dog town; therefore, impacts to the black-footed ferret should not occur as a result of implementing this project.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #1

General Wildlife Species

Under this alternative, wild horse removal would achieve and maintain the AML in the Adobe Town HMA. Under this alternative, the horses left on the range would have adequate forage, water, and space. Wildlife species should be able to live in natural ecological balance within and adjacent to the HMA. The wild horse gathering process in general should not impact wildlife species if stipulations and mitigation measures are implemented. There may be some temporary displacement of wildlife during the gathers; however, large game species should return to the area within a few days. Antelope forage on sagebrush and mule deer forage on forbs, shrubs, and some grasses; therefore, competition for vegetation should be minimal. Elk do forage on grasses and competition between elk and wild horses may occur; therefore, reducing wild horse numbers should benefit elk by reducing the forage competition between elk and horses. There may be some competition for water sources, such as springs and seeps, and if the population levels of the wild horses remains in balance with the landscape, then impacts to water sources and direct competition for use of the sources should be minimal.

Greater sage-grouse leks and potential nesting habitat tend to contain sagebrush pockets in drainages and draws or on the flats. Most of the natural landscapes within the Adobe Town HMA contain grass-dominated areas with low-growing forbs and/or badlands-type habitats, which are not used by grouse for nesting and/or broodrearing. In general, the impacts to greater sage-grouse strutting and nesting areas should be minimal provided the horse population is in balance with the ecosystem. Under this alternative, raptor species should not be impacted by wild horses and implementation of management actions.

Endangered, Threatened, Proposed, and BLM-Wyoming State Sensitive Species

The mountain plover has the potential to occur in the Adobe Town HMA. The limiting factor for this species tends to be nesting habitat. Wild horses using the range in balance with the ecosystem should not impact the mountain plover. Surface-disturbing activities will not be allowed within 400 meters of a concentration area or in potential mountain plover habitat between April 10 and July 10 for the protection of the nesting mountain plover. A concentration area is defined as an area where broods and/or adults have been found in the current year or documented in at least two of the past five years. Any planned project area will be assessed to determine if it contains potential nesting habitat. The Proposed Action is not likely to jeopardize the mountain plover, provided the mitigation measures stated above are implemented.

The black-footed ferret relies heavily on prairie dog towns for both food

sources and habitat. Wild horses using the habitats within the HMA in balance with the natural ecosystem may affect, but are not likely to adversely affect, the black-footed ferret. Gather procedures, such as the use of saddle horses and helicopters, should also not impact the ferrets. During the gathers any corrals that are built would be assessed for potential black-footed ferret habitat and projects would be moved at least 50 meters from any potential habitat. There is always the chance that prairie dogs may move into an area after a field check has been completed for a particular project; however, when an actual project is constructed, whether it be permanent or temporary corrals for example, the area would be rechecked at that time. If a new town has been established within 50 meters of a particular project, and the project site qualifies as potential black-footed ferret habitat, then either the project would have to be moved or a survey of the site and informal/formal consultation be completed with the Service. The Proposed Action may affect, but is not likely to adversely affect, the black-footed ferret, provided the mitigation measures stated above are implemented.

There should not be any impacts to sensitive species as a result of implementing the Proposed Action since site specific analysis will be completed if surface disturbing activities will occur. In general, the use of saddle horses and helicopters results in a low impact to species. Species may be temporarily displaced when horses travel by; however, in general riders on horses do not disturb wildlife and will usually just ride on through an area. Horses tend to be very unobtrusive and helicopters are in an area for such a short time that wildlife, although temporarily displaced, should return in a few hours.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #2:

General Wildlife Species

Under this alternative, the practices described in the Handbook would be employed whenever an emergency was determined to exist or whenever a request to remove wild, free-roaming horses from private lands was received. In general, there would be no regular, scheduled individual PMAs; therefore, the AML would not be achieved or maintained. Wildlife species should be able to live in natural ecological balance within and adjacent to the HMA provided that gathers do occur over time via private landowners' request. If gathers do occur, the wild horse gathering process in general should not impact wildlife species if stipulations and mitigation measures are implemented. There may be some temporary displacement of wildlife during the gathers; however, wildlife should return to the area within a few days.

There may be some impacts to wildlife, specifically elk, and to some extent mule deer, crucial winter range if over time there are no gathers and the range becomes overgrazed. Since antelope tend to forage on sagebrush, there should not be any competition with them, except perhaps at water sources. There may be some competition on spring/summer range with both mule deer and elk to some extent, since mule deer will forage on both shrubs, forbs, and some grasses, and elk forage on grasses. There may be some competition for water sources, such as springs and seeps, if the population levels of the wild horses do not remain in balance with the landscape. In general, raptor species should not be impacted by wild horses, even if the population levels become greater than the habitat can sustain. There may be some competition with nesting greater sage-grouse if the grasses become depleted between sagebrush and other shrubby vegetation.

Endangered, Threatened, Proposed, and BLM-Wyoming Sensitive Species

The impacts to threatened, endangered, proposed, and sensitive species under this alternative are very similar to those under Alternative #1. There should

be no impacts to these species as a result of implementing this alternative since, in the event that a gather does occur, a site-specific analysis will be completed if surface-disturbing activities will occur. In general, the use of saddle horses and helicopters results in a low impact to species. Species may be temporarily displaced when horses travel by; however, in general, riders on horses do not disturb wildlife and usually just ride through an area. Riders on horses try to avoid prairie dog burrows and large towns to reduce potential injuries to the saddle horse.

Mountain plovers generally breed and nest in areas with a vegetation height of less than 10 cm. Under this alternative, gathers would not occur regularly and competition for vegetation among livestock, wildlife, and wild horses may increase resulting in vast areas of low-vegetation. This may actually benefit the mountain plover since they prefer this type of habitat for nesting.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #3:

General Wildlife Species

Under this alternative, no gathering would take place inside or outside of the HMA. Populations of wild horses might eventually stabilize at very high numbers near what is known as their food-limited ecological carrying capacity. At these levels, range conditions would probably deteriorate significantly. Due to the lack of large predators (outside of an occasional mountain lion) required to limit population growth in the HMA, wild horse numbers would eventually exceed the carrying capacity of the HMA and adjacent areas. Competition for water may increase among wildlife species, specifically antelope, mule deer, and elk. Under severe stress to habitats, competition for forage resources may occur among wild horses, elk, mule deer, and antelope as well. Interspecies competition over time could affect antelope, mule deer, and elk, especially in crucial winter ranges. Large game species may be displaced over time and population levels and overall health of the herds could diminish. Due to similar dietary preference, elk would probably be the most noticeably affected species in the shortterm.

In the HMA, greater sage-grouse leks and potential nesting habitat tend to contain sagebrush pockets in drainages and draws or on the flats. Greater sage-grouse depend on grasses that grow and thrive underneath sagebrush plants for successful nesting habitat. Under this alternative, competition for grasses and forbs among livestock, wildlife, and wild horses would decrease good nesting habitat. Although grouse will probably nest in whatever habitat is available, as marginal as it may be, the overall nesting success rate will probably decline.

Raptors in the area feed on ground squirrels, mice, voles, small mammals, and passerine birds. Raptors in general will probably not be impacted by increased horses in the area since the horse populations should not impact their food sources.

Endangered, Threatened, Proposed, and BLM-Wyoming Sensitive Species

The impacts to both the mountain plover and black-footed ferret (prairie dog towns and complexes) under this alternative should be very similar to that under Alternative #2.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #4

General Wildlife Species

Under this alternative, wild horses would be gathered in order to administer fertility control agents. The wild horse gather process in general should not impact wildlife species if stipulations and mitigation measures are practiced. The overall impacts to species under this alternative should be very similar to that under Alternative #1.

Endangered, Threatened, Proposed, and BLM-Wyoming Sensitive Species

The impacts to both the mountain plover and black-footed ferret (prairie dog towns and complexes) under this alternative should be very similar to that under Alternative #1.

COMPARISON OF THE CONSEQUENCES OF THE ALTERNATIVES TO WILDLIFE SPECIES											
ALTERNATIVE #1			ALTERNATIVE #2			ALTERNATIVE #3			ALTERNATIVE #4		
IMD	ST	LT	IMD	ST	LT	IMD	ST	LT	IMD	ST	LT
O	O	+	O	-	--	O	-	--	O	-	O

COMPARISON OF THE CONSEQUENCES OF THE ALTERNATIVES TO THREATENED, ENDANGERED, and PROPOSED WILDLIFE SPECIES											
ALTERNATIVE #1			ALTERNATIVE #2			ALTERNATIVE #3			ALTERNATIVE #4		
IMD	ST	LT	IMD	ST	LT	IMD	ST	LT	IMD	ST	LT
O	O	+	O	-	--	O	-	--	O	--	O

C. CULTURAL, HISTORIC RESOURCES

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #1

Cultural resources would not be impacted as all potentially surface-disturbing activities would be subject to cultural clearance and mitigation practices.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #2

Cultural resources would not be significantly impacted as all potentially surface-disturbing management actions would be subject to cultural clearance and mitigation practices. Some increase in site disturbance through trampling would occur where horse populations increased significantly.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #3

There would be no gathering or other handling and, therefore, no adverse effects associated with the construction of traps or other facilities. Increased numbers of horses would trample an unknown number of sites.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #4

Cultural resources would not be impacted as all potentially surface-disturbing activities would be subject to cultural clearance and mitigation practices.

COMPARISON OF THE CONSEQUENCES OF THE ALTERNATIVES ON CULTURAL RESOURCES											
ALTERNATIVE #1			ALTERNATIVE #2			ALTERNATIVE #3			ALTERNATIVE #4		
IMD	ST	LT	IMD	ST	LT	IMD	ST	LT	IMD	ST	LT

COMPARISON OF THE CONSEQUENCES OF THE ALTERNATIVES ON CULTURAL RESOURCES											
0	0	0	0	-	-	0	-	-	0	0	0

D. WILD HORSES

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #1

Under this alternative, horses left on the range would have adequate forage, water and space. A TNEB would exist within the HMA and adjacent to them. A recent study by Hansen, Montana State University, found that removals as conducted by the BLM in herds under the jurisdiction of the Lander (Wy) and Idaho BLM, had no adverse effects on the reproduction rates of those herds. Death and injury could occur in gathering. Different methods have different hazards. Removed animals would undergo a lifestyle change. Approximately 1600 horse would be removed to attain AML. After attainment of AML, horses subsequently removed and placed in the Adopt-a-horse-or-burro Program would undergo the same lifestyle change. In the longterm, annual horse deaths would be approximately 120, consisting of 115 from natural mortality and 5 from stress/trauma associated with handling by the BLM. The average age of the population would increase slightly for the first ten years and then decline slightly as it returned toward beginning levels. After 30 years, the age distribution would look very much like the initial age distribution. Growth rate would remain pretty stable at 16% unless practices were employed in succeeding years to change it.

During the period 1983-93, the total population in the Adobe Town HMA has been as low as 303 and as high as 1177. During that period, over 2800 horses were removed from the HMA and placed in the Adopt-a-horse-or-burro program. (Table 1A, EA# 122). Since 1988, removal efforts have been hampered by a number of budgetary, logistical, and legal obstacles, resulting in the current population of 1740 (EOY 2001). From all the data available, it appears that the longterm average population growth (recruitment) rate for the Adobe Town HMA is 16%. This average appears to be derived from of a range of variation that has been as low as 2.5% and as high as 53.8%. The table below portrays the effect of a range of recruitment rates on the ability of the population to recover from the lower limit (LL) of the AML which is the post-gather population target for this alternative. It is well within the range of past experience for this HMA to expect that by 2007, when a subsequent removal might be conducted in order to maintain the population within the range established for the AML, the population would again exceed the AML LL by between 283 and 879 horses with an excess of 494 being the most likely outcome. Therefore it is appropriate to predict that this alternative will have no longterm adverse effect on the viability of the horses in the Adobe Town HMA. Dr Gus Cothran of the University of Kentucky recently conducted a genetic analysis of the White Mountain herd in Wyoming (approximately 100 miles northwest) and the Fifteenmile herd of Wyoming (approximately 200 miles north). The White Mountain herd is a herd of approximately 250 wild horses managed by the Rock Springs BLM Field Office. The Fifteenmile herd is approximately 125 animals, managed by the Worland field office of the BLM. In these analyses, Dr Cothran observed that "...if population sizes are maintained at a level greater than 100 adult animals there should be little (genetic) concern over the next few years." Thus, if genetic diversity in the Adobe Town herd were found to be comparable to the White Mountain herd and Fifteenmile herds, genetic concerns should be essentially nonexistent in a herd the size represented by the LL of the AML for Adobe Town (610 adult animals). From these analyses, it can also be seen that BLM managed wild horses are more genetically diverse than some of the domestic breeds of horses.

TABLE 11

AML LL (2002)	GROWTH RATE	2003	2004	2005	2006
610	16%	708	821	821	1104
AML LL (2002)	GROWTH RATE				
610	10%	671	738	738	893
AML LL (2002)	GROWTH RATE				
610	25%	763	954	954	1489

AML LL The lower Limit of the AML. This is the number of adults and does not include unweaned foals of the year.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #2

Under this alternative, horses inside the HMA would experience severe competition for necessary habitat components as the population increased. A TNEB would not be achieved. For a time, horses would be spared the stresses of handling as there would be no regular PMAs. After habitat stress became severe, emergency situations would develop that would require gathers. At first, no horses would be subject to the lifestyle change associated with the Adopt-a-horse-or-burro program. Eventually, about 500 horses per year would have to be removed in response to emergency situations and landowner requests. Some of these horses would be placed in the Adopt-a-horse-or-burro program and undergo a lifestyle change. Others would be placed in sanctuaries and undergo a lifestyle change. The horses needing emergency gathering would often be sick or weak. In the longterm, annual horse deaths would be approximately 1000, from natural mortality. The age distribution would be unaffected within the HMA.

The degree and extent of these effects would be a function of the increased population levels over time. While it is difficult to predict exactly what those levels would become, it is possible to predict what the results of a given number of years of uncontrolled population increase could be. The table below utilizes the observed rate of increase for the HMA and projects 5, 10, and 20 years of growth at those observed rates. Actual population levels would be affected by a variety of factors as reproductive rates would most likely change in response to environmental conditions and horses' tendency to leave areas of intense competition in search of "greener pastures."

TABLE 12

HMA	AML	2001 EOY POP EST	GROWTH RATE	5 years	10 years	20 years
Adobe Town	700	1740	16%	2543	6723	23,568

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #3

Under this alternative, horses would not experience the stress associated with gathering, removal or adoption. Recent research has shown that unmanaged populations of wild horses might eventually stabilize at very high numbers near what is known as their food limited ecological carrying capacity. At these levels, however, the herds would show obvious signs of ill-fitness including poor individual animal condition, low birth rates, and high mortality rates in all age classes due to disease and/or increased vulnerability to predation. In addition, supporting range conditions would noticeably deteriorate. As populations increased, competition for space would increase with all the associated stress. Due to the lack of large predators to limit population growth, numbers would eventually exceed the carrying capacity of the HMA and adjacent areas. Social interaction would change.

Horses would die of starvation, disease, or from lack of water. In the longterm, annual horse deaths would be approximately 1500, all from natural mortality. This average mortality would be caused by a wide range of events. As many as 5000 horses could die in a single bad winter and then several seasons might pass with only 500-1000 deaths from a variety of causes. Effect on the age distribution could not be predicted because different environmental events would affect different segments of the population disproportionately.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #4

Under this alternative, horse numbers in the HMA would first increase and then decrease over time. A regular program of gathering would be implemented in order to administer fertility control agents to the female segment of the population on a recurrent basis. This could subject as many as 1000 horses per year to the stress of gathering and handling. The frequency of gathering would be determined by the agent being used. The average age of the population would increase as the rate of reproduction was curtailed. The place of reproductive behaviors in Wyoming herds is not understood. Changes would be expected to occur as the presence of young became less-common to rare. Changes in band structure/behavior might occur as mares successfully treated with PZP would continue to cycle throughout the summer season, placing more and different demands on the stallions. Band life and particularly interaction amongst bands, would likely become noticeably more chaotic as the time of competition for estrous mares was increased. Over time, foaling would probably become less concentrated in the current foaling season. The possible effects of this cannot be predicted. Death and injury would continue to occur in conjunction with the administration of the agents and associated handling. They would be a direct function of the amount of handling necessary to implement the alternative. The number of animals undergoing the stress associated with adoption would be eliminated. Repeated handling would habituate horses to human presence, compromising their wild nature. Using the population model, the future of each herd would be modeled to show how the population would be expected to react over the period required to reach AML and what the populations might look then like for each herd. In the longterm, annual horse deaths would be approximately 130, consisting of 115 from natural mortality and 15 from stress/trauma associated with handling by the BLM. The average age of the population would increase as the birth rate decreased.

COMPARISON OF THE CONSEQUENCES OF THE ALTERNATIVES ON WILD HORSES											
ALTERNATIVE #1			ALTERNATIVE #2			ALTERNATIVE #3			ALTERNATIVE #4		
IMD	ST	LT	IMD	ST	LT	IMD	ST	LT	IMD	ST	LT
+	+	+	0	-	--	0	-	--	0	-	-

Probable Effects of Some Specific Practices on Wild Horses

The number of possible permutations of all the various management actions that comprise a particular management strategy is huge. Therefore, it is desirable to focus on three specific areas and to reveal the potential effects to the horses from the range of practices that might be employed.

a. EFFECT OF SELECTIVE REMOVAL ON WILD HORSES

See EA# 030-EA0-037, pages 34-35. and APPENDIX A, for detailed discussions of the effects of various selective removal practices on horses. It is BLM policy that unadoptable horses will not be removed from the public rangelands. This policy is being modified in order for BLM to attain the goal of reducing all herds to AML by 2004 and ensuring healthy viable populations while doing so. Because every attempt will be employed to insure that those horses that remain comprise a healthy, viable age/sex distribution, the effect will be positive.

b. EFFECT OF FERTILITY CONTROL ON WILD HORSES

EA# 030-EA0-037, APPENDIX A, presents the results of an extensive analysis of the comparative effects of alternate applications of selective removal criteria and fertility control on a typical population of horses. This analysis is, of necessity, focused on and limited to the potential effects of varying degrees of success in any treatment strategy on the demographics of that typical population and, therefore, the habitat. It is widely accepted that significant changes in the reproductive and young-rearing behavior of any population of animals may have effects beyond the demographic arena. Those effects may be felt by individual animals, family groups, entire populations, or any combination.

The comparative physical and psychological effects of alternate treatments on individual mares is beyond the scope of this analysis and is not included.

E. DOMESTIC LIVESTOCK

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #1

An expected improvement in the quality and quantity of forage availability is expected where excess or strayed wild horses are removed. This would provide greater opportunity for improved range conditions within the related areas. A complete analysis of livestock grazing and grazing impacts in this area is found in the Divide Grazing EIS. Grazing in this area is also addressed in the Great Divide RMP.

Livestock owners would be notified that wild horse population control operations are planned. The possibility exists that domestic livestock would be spooked by wild horses and/or the helicopter. In this situation, livestock would be subject to short-term stress and possible injury.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #2

Under Alternative #2, wild horse population control methods would only be implemented under emergency conditions and in response to landowner requests. This alternative would allow wild horse populations to increase within the Adobe Town HMA. Livestock within the HMAs would gradually be displaced by wild horses as demand for space, forage, and water increased. Displacement would be slow and indirect. As competition increased, it would become less economically favorable to utilize these areas with domestic livestock. This would have a negative economic impact on livestock producers. Range conditions within the HMA would deteriorate. These impacts would be cumulative over time.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #3

Under Alternative #3, wild horse population control methods would not be implemented. This alternative would allow wild horse populations to increase within the Adobe Town HMA and nearby areas. Livestock would gradually be displaced by wild horses as demand for space, forage, and water increased. Displacement would be slow and indirect. As competition increased, it would become less economically favorable to utilize these areas with domestic livestock. This would have a negative economic impact on livestock producers. Range conditions throughout the area would deteriorate. These impacts would be cumulative over time.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #4

Under Alternative #4, wild horse population control methods would only include fertility control. This alternative would allow wild horse populations to increase within the Adobe Town HMA and nearby areas over the short-term. Livestock would gradually be displaced by wild horses as demand for space, forage, and water increased over the short-term. Displacement would be slow and indirect. During this period, it would become less economically favorable to utilize these areas with domestic livestock. This would have a negative economic impact on livestock producers. Range conditions throughout the area would begin to deteriorate.

Over the long-term, these impacts would be reduced. Wild horse populations within the Adobe Town HMA would return to levels close to AML limits. However, wild horses would likely remain in areas outside the HMA. While these populations would not increase over time, landowner request for removal would continue.

COMPARISON OF THE CONSEQUENCES OF THE ALTERNATIVES ON DOMESTIC LIVESTOCK											
ALTERNATIVE #1			ALTERNATIVE #2			ALTERNATIVE #3			ALTERNATIVE #4		
IMD	ST	LT	IMD	ST	LT	IMD	ST	LT	IMD	ST	LT
0	+	++	0	-	--	0	-	--	0	-	-

F. VEGETATION AND SOILS

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #1

Under Alternative #1, wild horse populations would be controlled. Wild horse populations would decrease throughout the Adobe Town HMA. Impacts from wild horses would diminish and would be acceptable or beneficial if AMLs were correct. Vegetative diversity and health should improve in areas where excess or strayed wild horses are removed. Vegetative cover should also increase which would decrease the amount of soil erosion, including sheet and rill erosion.

Sheet and rill erosion would not exceed natural levels for the sites because the maintenance of AMLs would help ensure that a natural ecological balance would be maintained in and adjacent to the HMAs. Perennial vegetation would continue to experience season-long grazing pressure, which is not conducive to optimum plant health and vigor. Soil erosion and plant health would continue to be compromised around water locations, but elsewhere impacts should be minimal. Watershed health should improve throughout much of the area.

Adverse, short term effects to vegetation and soils would occur at trap sites when gathers were being conducted. Vegetation would be disturbed by trap construction though the soil surface and root systems would remain intact. Short term trails and soil compaction may develop near and in the trap. Any vegetation removed would be minimal. Impacts would be localized. Improved soil, watershed, and vegetative conditions would ensure that any impacts would be short-lived.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #2

Under Alternative #2, wild horse population control methods would only be implemented under emergency conditions and in response to landowner requests. This alternative would allow wild horse populations to increase within the Adobe Town HMA. Vegetative diversity and health would continue to deteriorate throughout the HMA. Vegetative cover would decrease, increasing the amount of soil erosion, especially due to sheet and rill erosion.

Soil erosion would increase in proportion to herd size and vegetation disturbance. The shallow desert topsoils can not tolerate much loss without losing productivity and thus the ability to be revegetated with native plants. Invasive non-native species could increase following increased soil disturbance and reduced native plant vigor and abundance. The greater impacts would be around water locations. Watershed health throughout the area would continue to decrease. These impacts would be cumulative over time.

Impacts from traps would be minimal. When traps are used, local impacts would be similar to those under Alternative #1. Fewer traps would be needed resulting in fewer localized impacts than those described in Alternative One.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #3

Under Alternative #3, wild horse population control methods would not be implemented. This alternative would allow wild horse populations to increase within the Adobe Town HMA and nearby areas. Impacts to soils and vegetation would be similar to those described under Alternative #2 except impacts would not be limited to the HMA.

Increased use over the whole HMA would adversely impact soils and vegetation health, especially around the water locations. As native plant health deteriorated and plants were lost, soil erosion would increase. The shallow desert topsoil can not tolerate much loss without losing productivity and thus the ability to be revegetated with native plants. Invasive non-native plant species would increase and invade new areas following increased soil disturbance and reduced native plant vigor and abundance. This would lead to both a shift in plant composition towards weedy species and an irreplaceable topsoil and productivity loss from erosion. There would also be increased impacts to areas outside the HMAs as horses move out in search of better forage. Impacts would be cumulative over time and would affect areas beyond the HMA.

There would be no impacts from trapping operations because none would occur.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #4

Under Alternative #4, wild horse population control methods would only include fertility control. Pre-analysis determined that fertility control alone would not achieve AML within 30 years. This alternative would result in a population after 30 years which would still exceed the AML by approximately 36%. Under this alternative, gathers would occur outside the HMA to remove strayed horses.

There would be an increase in soil erosion and an associated decrease in plant vigor as herd numbers increased. This trend would not continue, but would stabilize at an increased erosion rate compared to maintaining the herd numbers at AML. Perennial vegetation would continue to experience season-long grazing pressure, which is not conducive to optimum plant health and vigor. Soil erosion and plant health would continue to be compromised around water locations and in the entire HMA. Invasive non-native plant species would increase and invade new areas following increased soil disturbance and reduced native plant vigor and abundance. This would lead to both a shift in plant composition towards weedy species and an irreplaceable topsoil and productivity loss from erosion. Watershed health throughout the area would continue to decrease. These impacts would be cumulative over time.

Adverse effects to vegetation and soils would occur at trap locations where yearly gathers were being conducted for the purpose of administering fertility control agents.

COMPARISON OF THE CONSEQUENCES OF THE ALTERNATIVES ON VEGETATION & SOILS											
ALTERNATIVE #1			ALTERNATIVE #2			ALTERNATIVE #3			ALTERNATIVE #4		
IMD	ST	LT	IMD	ST	LT	IMD	ST	LT	IMD	ST	LT
-	0	+	-	-	--	-	--	--	-	--	-

G. RECREATION

GENERAL

Recreation values are quite subjective. Those who wish to see wild horses might appreciate the increased viewing opportunities associated with increased herd sizes, so long as the condition of the horses remained good. Those who prefer other recreational activities that are degraded by an increase in the horse population might prefer to see smaller horse herds. Some might prefer to see no horses at all, particularly if they perceived that horses were using habitat that would otherwise be able to support greater numbers of native wildlife. Any change in the relative balance among species in the habitat is going to affect the quality of the recreational opportunities found in the HMA. The analysis below is based on the assumption that the public wants the balance of recreational opportunities available in the HMA to remain essentially unchanged from what it has been in recent years.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #1

Recreational opportunities would probably be unchanged, so long as environmental factors or disease did not significantly affect the herds.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #2

Where horse numbers increased, certain kinds of opportunities associated with the horse population would increase, although the condition of the horses could decline over time, rendering them less desirable for viewing. The quality of recreational opportunities associated with the quality of the habitat, such as viewing or hunting wildlife, would probably decline as the wild horse population increased beyond the carrying capacity of the habitat.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #3

The quality of all recreational opportunities would decline, in the longterm. Some opportunities associated with the presence of wild horses might increase in the short term, but they would probably decline in the longterm due to the increasing occurrence of obviously malnourished horses. Recreationists would likely encounter carcasses and their scavengers more frequently when the population of horses is in decline due to insufficient feed and/or water. Thus, although the increased population of wild horses might make them easier for the recreationist to find, the experience might not be as desirable due to the poor condition of the horses.

Other recreation opportunities would also be detrimentally affected in the long run due to the habitat degradation caused by wild horse overpopulation. Game species might be pressured out of the area in search of essential resources. Viewers might not need to go to the HMA to view wild herds because the wild horses would be forced to expand their territories outside the current HMA boundaries in order to find the feed and water they need to survive. Once they establish themselves beyond the HMA boundaries, they would upset the balance among other species in the new habitat as they used resources required for the other species. Opportunities for viewing and hunting other wildlife could be severely reduced in the long run, both within the HMA and beyond it.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #4

Recreational opportunities would be unchanged, in the longterm. In the short term, there would be greater viewing opportunity with increased herd sizes, but the habitat, and its other dependant species, would probably be impacted by the increased horse population until desired herd sizes are reached.

COMPARISON OF THE CONSEQUENCES OF THE ALTERNATIVES ON RECREATION											
ALTERNATIVE #1			ALTERNATIVE #2			ALTERNATIVE #3			ALTERNATIVE #4		
IMD	ST	LT	IMD	ST	LT	IMD	ST	LT	IMD	ST	LT
0	0	0	0	+	-	0	+	--	0	0	0

H. WILDERNESS**GENERAL**

The Adobe Town Wilderness Study Area (WSA) is managed to preserve its wilderness character (naturalness, solitude, and opportunities for primitive recreation). Fundamental to this preservation is prohibition of new surface disturbance or permanent structures so that the WSA retains the character of an area untrammelled by man. Any impacts that degrade the naturalness of the WSA would impair its suitability for designation as wilderness, therefore violating the nonimpairment standard of the Interim Management Policy. The presence of wild, free-roaming horses is part of the character of the WSA.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #1

The suitability of the WSA for wilderness designation would be unimpaired.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #2

Impacts of an increased wild horse herd size would probably decrease the naturalness of the WSA and therefore impair its suitability for designation as wilderness. Impacts on the naturalness of the WSA could come in many forms, primarily in the form of excessive erosion due to increased horse traffic, reduced soil-stabilizing vegetative cover, and a change in the number of members of other species displaced by the increased competition for resources.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #3

Impacts of an increased wild horse herd size would probably decrease the naturalness of the WSA and therefore impair its suitability for designation as wilderness. Impacts on the naturalness of the WSA could come in many forms, primarily in the form of excessive erosion due to increased horse traffic and reduced soil stabilizing vegetative cover, and a change in the number of members of other species displaced by the increased competition for resources. If no gathers occurred, the horses might well expand their territories far beyond the HMA boundaries to get the resources they need, proportionately reducing their impacts on the WSA, but the herd would likely continue to occupy traditional territories until absolutely necessary, thus having a detrimental effect on the WSA in the short term as well as longterm.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #4

Impacts of an increased wild horse herd size would probably decrease the naturalness of the WSA and possibly impair its suitability for designation as wilderness. Impacts on the naturalness of the WSA could come in many forms, primarily in the form of excessive erosion due to increased horse traffic, reduced soil-stabilizing vegetative cover, and a change in the number of members of other species displaced by the increased competition for resources. Whether the impacts of the increased herd size would be a serious concern would depend on how large the herd got before fertility controls had the desired effect. The sooner the desired herd size is reached, the sooner the WSA would be able to recover from the impacts associated with increased herd size.

COMPARISON OF THE CONSEQUENCES OF THE ALTERNATIVES ON WILDERNESS											
ALTERNATIVE #1			ALTERNATIVE #2			ALTERNATIVE #3			ALTERNATIVE #4		
IMD	ST	LT	IMD	ST	LT	IMD	ST	LT	IMD	ST	LT
0	0	0	0	-	-	0	-	--	0	-	0

I. RIPARIAN AREAS

Potential Effect on Riparian areas from Wild Horse Management

Direct Consequences

Overabundant grazing and browsing animals can detrimentally affect the condition of riparian areas due to overuse of riparian plants and physical damage caused by loitering. Specific impacts on riparian areas from animal use may include declining water quality from increased sedimentation, declining plant vigor, and decreased stream channel stability.

Indirect Consequences

Animal use can indirectly affect riparian condition through the removal of upland forage. When upland rangeland is adversely affected through the degradation of plant communities, nearby riparian areas are subjected to additional stress associated with increased run-off and sedimentation. If sufficient upland forage is removed, domestic and other grazing animals may then be forced to concentrate more in riparian areas. Increased utilization in riparian areas may induce species changes that increase the riparian grass component. This could increase the tendency for horses to select riparian areas for food.

At sufficiently elevated use levels, increased wild horse populations could adversely affect infiltration rates from cumulative impacts on soil compaction and reduced vegetative cover on both riparian and upland sites. Compacted soil restricts water infiltration, thus increasing runoff and soil loss. Similarly, vegetative cover serves to reduce runoff water velocities and thus promotes infiltration and reduces erosion. Increased sedimentation in streams and riparian areas is the likely result of both of these occurrences.

Assessing the contribution of wild horses on total riparian impacts can be done by assuming constant grazing pressure from other species (equivalent to assuming no change in livestock grazing management and steady wildlife populations) and then estimating the probable change in riparian condition due to changes in wild horse stocking.

Potential Effect on Riparian areas from Wild Horse Population Management Actions

In addition to the kinds of impacts identified above that would accrue from wild horse management in general, the action of gathering wild horses could potentially effect riparian areas. To avoid potential impacts and for a number of other reasons, traps are not located in riparian areas and thus gathers are unlikely to affect riparian ecosystems. Description of the methods used to select temporary trap sites and specific mitigative measures are included elsewhere in this document.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #1

Under this alternative, AML's specified in the Habitat Management Plan would be achieved greater than 95% of the time. The number of free-roaming horses would decline. Under this scenario, direct and indirect consequences would be less than current levels, resulting in a net reduction in the stated impacts, assuming other animal impacts are constant. Under this alternative, riparian areas could respond to prescribed management of livestock, and the percentage

of miles of lotic riparian habitat and acres of lentic riparian habitat in proper functioning condition would increase, over time. Prescribed changes in livestock management would be able to accomplish objectives developed for these areas as the total levels of grazing related impacts to riparian and associated uplands would be reduced.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #2

This alternative employs no population controls by the managing agency except those prescribed in emergency situations. This alternative would lead to population expansion until gathers occurred as a result of landowner complaint or other critical situations. Under this alternative, it can be assumed that the indirect consequences identified above would be significant, leading to a decline in riparian condition within the HMA. Some direct impacts of horse use on riparian ecosystems would also likely be seen. Indicated changes in livestock management would be precluded.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #3

This is the "natural" alternative and would result in population increases and decreases in response to favorable and unfavorable environmental and predator-prey relationships. Often these population swings can be dramatic and result in large population gains followed by catastrophic die-off. Habitat effects of this type of management would be the decline of riparian habitat when populations were maximum, followed by habitat recovery when horse populations declined. In the end, the extent that habitat could recover when populations were low would contribute to the determination of the extent and timing of population recovery. Effects of this alternative are highly variable, and likely to have the most unpredictable outcomes. Under this alternative, changes in livestock management would have no discernible effect on the resource.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #4

Population control would be exercised under this alternative using fertility control alone. The outcome of this alternative is similar to the Proposed Action, but only after more than 30 years. The significant difference in the two alternatives with respect to riparian habitat is that this alternative would result in a slight decline in riparian habitat in the short and intermediate time frame until horse populations began to be controlled by treatments.

Effect of the Alternatives on Other Surface Water Resources

The effect of various wild horse management strategies on the limited other surface water resources will be fairly straightforward and a linear function of wild horse population levels. Simply put, more horses will drink more water and less horses will drink less water. This, in turn, influences the amount left for use by others and for the function of the desert hydrologic systems.

COMPARISON OF THE CONSEQUENCES OF THE ALTERNATIVES ON RIPARIAN AREAS											
ALTERNATIVE #1			ALTERNATIVE #2			ALTERNATIVE #3			ALTERNATIVE #4		
IMD	ST	LT	IMD	ST	LT	IMD	ST	LT	IMD	ST	LT
0	+	+	0	-	--	0	-	--	0	-	0

J. PRIVATELY-OWNED AND CONTROLLED LANDS**General**

The effects of any particular alternative course of wild horse management upon privately-owned and controlled lands would fall into two categories. The first, environmental effects, would not be significantly different depending on the ownership or control of the land. A particular riparian area, for instance, would be affected in the same manner by a given level of wild horse use irrespective of its ownership or form of control. The second category would be a particular amalgam of legal and attendant socioeconomic aspects that would tend to be quite subjective and personal and might be called value. This category would comprise a range of factors associated with a property owner's rights to the enjoyment of whatever might comprise the value of that property. An important principle of our legal system provides for, under carefully prescribed conditions, that private property (or values associated with a particular piece of property) may be "taken" for public use, provided that the private owner is properly compensated and due process is employed. The Act did not authorize the taking of any privately-owned or controlled lands for use by wild horses. Thus, if a particular course of action (alternative) would result in the value of privately-owned or controlled property being adversely affected, the alternative would be legally unavailable as a course of action, in other words, the taking would not be authorized under current authorities.

CONSEQUENCES OF ALTERNATIVE #1

There would be no takings inside or outside of the HMA. Horse populations would be maintained at levels which would not deprive landowners of the productive value of their lands.

CONSEQUENCES OF ALTERNATIVE #2

Under this alternative, there would be no takings on lands outside of the HMA. There could be takings inside of the HMA. The time it would take for populations inside the HMA to reach levels sufficient to utilize all the forage available on the private lands would be hard to predict. Landowners could physically exclude horses from their lands by means of legal fences, and takings would then be avoided. However, the landowners would not be required to do so

CONSEQUENCES OF ALTERNATIVE #3

All populations would expand without control. Horses would expand their range. Eventually all available forage would be consumed by horses, and takings would occur within the HMA and in adjacent areas.

CONSEQUENCES OF ALTERNATIVE #4

Populations would increase for the period necessary for reproductive suppression to achieve stable populations. It is possible that the populations would remain high enough for long enough to effect temporary takings. Eventually, all populations would then decline. If and when AML was reached through these means, the level of fertility control would be decreased in order to allow sufficient reproduction to maintain the populations at AML. This would result in some variable amount of forage remaining available for other uses throughout the period, and permanent takings would thus be avoided inside the HMA. There would be no takings outside of the HMA.

COMPARISON OF THE CONSEQUENCES OF THE ALTERNATIVES ON PRIVATE LANDS											
ALTERNATIVE #1			ALTERNATIVE #2			ALTERNATIVE #3			ALTERNATIVE #4		
IMD	ST	LT	IMD	ST	LT	IMD	ST	LT	IMD	ST	LT
0	+	+	0	-	--	0	-	--	0	-	0

K. SOCIOECONOMICS

With the exception of energy development, the present uses of the public lands within the HMA are quite interdependent since they all rely on the same mix of limited natural resources. These uses can all be optimized to varying degrees without adversely affecting other uses. For example, improved genetics in domestic livestock can improve the profitability of that endeavor without the increased consumption of any habitat component required for some other use. These uses can also compete with one another. For example, if livestock numbers were increased with positive effects to 10 livestock operators, the supply of wild meat available from licensed sport hunting might decline with negative effects to 50 individual families.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #1

Under this alternative the BLM would employ the practices and methods described in the supplemental program guidance and statewide gather plan to achieve and maintain AML in the HMA. AML would be attained in the year 2002 and maintained there after by the periodic removal of horses, ages five and under. The social, economic, and environmental consequences of this action would allow for the continuation of other resource uses at present levels. This would allow viable wild horse populations to reach established management levels, upon which removal would occur as wild horse numbers exceeded established management levels.

The regional impacts from this alternative would be minor.

The overall local social effects of this action would be minimal. Change to regional lifestyles and attitudes would be insignificant because most ranchers would continue operations much as they have before. It is expected that changes to the historical patterns of use in the area would be insignificant.

The proposed management levels of wild horses would allow for continued implementation of the related management actions from the GDRA Resource Management Plan. In the longterm, the rangeland conditions of both upland and riparian areas would improve. In the short term, the rangeland conditions would be maintained or slightly increased depending on climatic conditions. This alternative would allow the greatest opportunity for the Great Divide Resource Management Plan objectives for wild horses, wildlife, and livestock grazing to be met.

Wildlife species, both game and nongame, would be expected to be maintained or slightly increase in the longterm. In economic terms, this maintenance of wildlife populations would represent maintenance of hunter revenues, both to the state and the communities. No data are available to indicate the exact amount of hunter days in the HMA and, therefore, the economic significance of this impact.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #2

Under this alternative the BLM would not achieve or maintain AML in the HMA. The BLM would only employ the practices and methods described in the Wyoming Supplemental Handbook which would only allow for removal under emergency conditions or in response to landowner requests. This action would allow wild horses to exceed the recognized carrying capacity of the federal range and all domestic livestock grazing would have to be reduced to the point of possible elimination.

Adverse impacts would occur in those grazing allotments that are within or adjacent to the HMA. Removal or reduction of livestock grazing would have an impact to grazing management flexibility and opportunities. When livestock grazing is eliminated to accommodate the additional forage demand from the

expanding wild horse populations, the following impacts would probably result.

Elimination of livestock use from all public lands within the HMA would not have a significant adverse impact on the national livestock industry. However, it would cause significant impacts to the local economy and substantial increases in operational costs for the effected permittee, for example, increased fence maintenance.

Livestock operators' dependency on other lands would increase if they elected or were able to stay in the livestock business. Herding would be required to move sheep and cattle to leased private or state lands, and this leased property would have to be fenced to prevent livestock from straying onto public land and to prevent horses from consuming available forage desired for livestock production or resource protection.

Some operators would be affected less than others, but many would be forced to seek additional sources of income. Some would not be able to continue their ranching operations without the public land forage.

The impacts to the regional economy from this alternative would be substantial. There would be a loss of employment associated with the potential changes to livestock operations in the HMA. Another impact would be the loss of property and sales tax revenues to the affected county.

An important consideration under this alternative relates to wildlife and recreation values. The elimination or near elimination of livestock from public lands in these areas would not lead to more stabilized wildlife populations because the livestock use would be replaced by horse use which would be less intensively-managed and regulated than the livestock grazing that it replaced. In the longterm, under this alternative, wildlife values would decline noticeably. The forage competition that would occur with wild horses on public lands would force wildlife to eventually migrate to private lands. No specific data are available for this area regarding number of angler or hunter days. Recreation expenditures would be expected to remain stable for a time, then decrease to correlate with effects on the wildlife populations. In a region that is predominantly agrarian, this alternative would present significant social impacts, serious enough to change the traditional ranching lifestyle.

The BLM's cost to administer this alternative would remain high. Gathering expenses outside the HMA or during emergency situations as emigration became a significant factor in the horses' attempt to adjust their populations and distributions to the available habitat.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #3

The effects of this alternative would be similar to Alternative # 2. Under this alternative, the BLM would rely on predation and environmental forces to establish and maintain self-regulating populations. This action would allow wild horses to exceed the recognized carrying capacity of the federal range and all domestic livestock grazing would have to be reduced to the point of possible elimination.

Adverse impacts would occur in those grazing allotments that are within or adjacent to the HMA. Removal or reduction of livestock grazing would impact grazing management flexibility and opportunities. When livestock grazing is eliminated to accommodate the additional forage demand from the expanding wild horse populations, the following impacts would probably result. Elimination of livestock use from all public lands within the herd areas would not have a significant adverse impact on the national livestock industry. However, it would cause significant impacts to the local economy and substantial increases in operational costs for the affected permittee, for

example, increased fence maintenance.

Livestock operators' dependency on other lands would increase if they elected or were able to stay in the livestock business. Herding would be required to move sheep and cattle to leased private or state lands, and this leased property would have to be fenced to prevent livestock from straying onto public land and to prevent horses from consuming available forage desired for livestock production or resource protection.

Some operators would be affected less than others, but many would be forced to seek additional sources of income. Some would not be able to continue their ranching operations without the public land forage.

The impacts to the regional economy from this alternative would be substantial. There would be a loss of employment associated with the potential changes to livestock operations in the HMA. Another impact would be the loss of property and sales tax revenues to the affected county.

An important consideration under this alternative relates to wildlife and recreation values. The elimination or near elimination of livestock from public lands in these areas would not lead to more stabilized wildlife populations because the livestock use would be replaced by horse use which would be less intensively-managed and regulated than the domestic livestock grazing that it replaced. In the longterm, under this alternative, wildlife values would decline noticeably. The forage competition that would occur with wild horses on public lands would force wildlife to eventually migrate to private lands. No specific data are available for this area regarding number of angler or hunter days. Recreation expenditures would be expected to remain stable for a time, then decrease to correlate with effects on the wildlife populations. In a region that is predominantly agrarian, this alternative would present significant social impacts, serious enough to change the traditional ranching lifestyle.

Managing for a naturally-limiting wild horse population would not allow for continued implementation of management plans and management agreements. In the short-term, the conditions of uplands and riparian areas would decline. In the longterm, the rangeland conditions would stabilize once wild horse populations stabilize. This alternative would allow the least opportunity for resource management objectives for wild horses, wildlife, recreation, and livestock grazing.

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE #4

Under this alternative the BLM would achieve and maintain the AML in the Adobe Town HMA by the use of fertility control. In the short term, this action would allow for the wild horse population to expand. Under this alternative, horse populations would increase for the period necessary for reproductive suppression to achieve stable populations. Eventually, all populations would then decline. When AML levels were reached, the use of fertility control practices would decrease in order to allow sufficient reproduction to maintain the populations at AML.

This alternative would be very costly to implement. The regional economic impacts from this alternative would be minor. The overall local social effects of this alternative would be a short term increase in revenue from increased personnel and equipment to implement fertility control. In the longterm, as horse numbers decreased, the revenue and cost to continue implementation would eventually decline and then stabilize as the availability of crews and equipment would be more predictable.

COMPARISON OF THE CONSEQUENCES OF THE ALTERNATIVES ON SOCIO ECONOMICS											
ALTERNATIVE #1			ALTERNATIVE #2			ALTERNATIVE #3			ALTERNATIVE #4		
IMD	ST	LT	IMD	ST	LT	IMD	ST	LT	IMD	ST	LT
0	0	+	0	-	-	0	-	-	0	0	0

COMPARATIVE DIRECT BUDGET REQUIREMENTS OF IMPLEMENTING THE ALTERNATIVES

TABLE 13

ALTERNATIVE →		Alternative1		Alternative2		Alternative3		Alternative4	
PRACTICE ↘	UC\$*	HORSES	K\$	HORSES	K\$	HORSES	K\$	HORSES	K\$
GATHERING	348	8900	3097	?		0	0	30,000	10440
PREPARATION	1097	4850	5320	?		0	0	0	0
ADOPTION	543	3950	2144	?		0	0	0	0
TREATMENT #	168	0	0	0		0	0	12,000	2016
TOTAL	XXX	XXXX	10561	XXXX		XXXX	0	XXXX	12456

NOTES

Comparisons are derived from 30 year projections (FY 2002-2032) of the levels of activity as described for each alternative.

* UC (Unit Costs) are from the FY 2002 Wyoming Budget submission and are not adjusted for inflation.

Current estimated cost of administering a two-year vaccine when it becomes available (\$68 for the vaccine and \$100 for its preparation and administration).

V.MITIGATIVE MEASURES

Each alternative incorporates mitigation measures that have been developed through experience. For instance, whenever an alternative includes the use of traps to capture horses for any purpose, certain mitigative measures are routinely included. These include: no new roads will be constructed to trap sites and no blading will be allowed for roads or two track trails; no blading will be allowed for wing construction or corral construction; trap site selection will avoid sites where potential conflicts have been noted with other species or their habitat. Standard operating procedures include mitigation of adverse impacts that have been encountered. When soil conditions are wet enough to result in irreversible or longterm damage, operations will be suspended until conditions permit proper use.

No additional mitigation has been proposed. To propose additional mitigation for the probable impacts identified with each alternative would blur the distinctions between alternative management strategies and render the analysis moot.

VI. RESIDUAL IMPACTS

Residual impacts are those left over at the conclusion of a particular course of action and that could not be avoided or further mitigated. Because no additional mitigation is proposed beyond that which would be inherent in a particular course of action, all of the impacts from a particular course of action identified would be residual. The degree of severity of a residual impact is often a function of time. To illustrate, moderate overutilization of a forage plant for a short period of time has little or no residual impact because a change in the level of use can be made before the forage plant's productive potential is reduced. Extended periods of moderate overutilization, on the other hand, will eventually reduce the productive potential of that plant and thus a residual impact (reduced production) would accrue after a time. If an action could conceivably be completed within a five-month period and logistical or other factors protracted the completion of the action, residual impacts might increase.

VII. CUMULATIVE IMPACTS

The Adobe Town HMA is not a designated wild horse range. It contains a variety of resources and supports a variety of uses. There are a number of other BLM-conducted and authorized activities ongoing in and adjacent to the HMA. Any alternative course of wild horse management has the opportunity to affect and be affected by those activities. Most of those activities depend in one way or another on the maintenance of a healthy landscape. Further, wild horses are not unique to the Adobe Town HMA. Thus, the impacts of a course of action pursued within the HMA may have effects on the national population or the well-being of the species as a whole. The following tables represent the probable cumulative impacts of the alternatives analyzed.

A. ALTERNATIVE #1

CUMULATIVE IMPACTS OF THE ALTERNATIVE ON:		
NATIONAL POPULATION	THRIVING NATURAL ECOLOGICAL BALANCE	MULTIPLE USE RELATIONSHIP
Stabilizing	Maintained	Preserved

B. ALTERNATIVE #2

CUMULATIVE IMPACTS OF THE ALTERNATIVE ON:		
NATIONAL POPULATION	THRIVING NATURAL ECOLOGICAL BALANCE	MULTIPLE USE RELATIONSHIP
Destabilizing	Not Maintained	Not Preserved

C. ALTERNATIVE #3

CUMULATIVE IMPACTS OF THE ALTERNATIVE ON:		
NATIONAL POPULATION	THRIVING NATURAL ECOLOGICAL BALANCE	MULTIPLE USE RELATIONSHIP
Destabilizing	Not Maintained	Not Preserved

D. ALTERNATIVE #4

CUMULATIVE IMPACTS OF THE ALTERNATIVE ON:		
NATIONAL POPULATION	NATURAL ECOLOGICAL BALANCE	MULTIPLE USE RELATIONSHIP
Slight Increase	Maintained	Preserved

VIII. CONSULTATION AND COORDINATION**A. INTRODUCTION**

The Bureau of Land Management is responsible for obtaining public input on Proposed Actions within the wild horse program. Public input has been solicited for several discrete actions proposed over the last few years.

In addition, a formal statewide hearing regarding the use of helicopters for the gather of wild horses in Wyoming is held each year. The public is provided an opportunity to discuss concerns and questions with BLM staff.

Environmental Analyses have been prepared which analyze the effects of individual population management actions on specific populations of wild horses. In preparing those analyses in 1999, interested publics were contacted and asked to identify issues of concern for inclusion in the analyses. Some of those concerns identified were beyond the scope of the analysis of the particular actions at the time they were proposed. EA# WY-039-EA0-037 was structured to attempt to address those additional concerns.

Recently, the Rawlins and Lander Field Offices completed a maintenance of their respective land use plans. As part of that action, input was solicited for that analysis and updated mailing lists for wild horse related issues were developed.

Comments concerning the alternatives analyzed herein will be solicited from the public until March 1, 2002. Comments received during that period will be considered in arriving at a decision whether or not to implement any of the alternatives analyzed.

A notice will be published in the Federal Register on or about March 31, 2002, which will notify the public of that decision and supporting documentation and the action selected as a result of the analysis contained herein.

B. DISTRIBUTION

On December 14, 2001, a letter (APPENDIX B) was sent to a number of specific individuals announcing the availability of this document and the comment period.

C. LIST OF PREPARERS

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 John Spehar
 Mary Read
 Mike Calton
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 Krystal Clair
 Lynn McCarthy
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APPENDIX A**SITE SPECIFIC GATHER PLAN FOR FY 2002 FOR THE ADOBE TOWN HMA AND THE AREA DESIGNATED AS I80 SOUTH WITHIN THE RAWLINS FIELD OFFICE.****BACKGROUND**

This plan was developed pursuant to the practices and procedures detailed in the Rawlins Field Office Wild Horse Management Handbook (Handbook) and the Wyoming Supplemental Program Guidance for Wild Horse Management. The Handbook and guidance are included in this plan by reference. They describe the operating practices and mitigating measures that constitute, among other things, Wyoming BLM's Standard Operating Procedures for removing stray and excess wild horses from the public lands and contiguous areas of private land. This site-specific gather plan describes how a specific Population Management Action (PMA) will be conducted. Specifically, this plan will guide the capture, removal, transportation, and associated handling of approximately 1600 excess and stray horses from the Adobe Town Herd Management Area (HMA) and areas adjacent to the HMA collectively referred to as I80 South within the Rawlins Field Office (RFO). The action is scheduled to begin after July 15, 2002 and continue for a necessary, reasonable and prudent period of time beyond that to complete the objectives of the plan. The ultimate objective of this action is to achieve the Lower limit of the AML of 610 horses plus unweaned colts for the Adobe Town HMA and to limit the distribution of horses in the area to the HMA. Further, it is the objective of this action to ensure that the horses remaining comprise a healthy herd, with an age/sex distribution that will insure a thriving natural ecological balance (TNEB) in the Adobe Town HMA.

PURPOSERemoval of Animals, Background

Wild, free roaming horses are removed from the public and private lands for two distinctly different purposes. When horses inside HMAs exceed the population levels established for them, excess horses (the number of horses present above that established level) may be removed. When horses stray from within the HMAs to nearby areas of public or private land, the strayed horses must be removed if it is not practical to return them to the HMA from which they have strayed.

The purpose of this removal action is to continue to implement decisions to achieve the Appropriate Management Levels (AMLs) that have been established for the HMAs (remove excess horses) within the jurisdiction of the RFO and to limit the distribution of horses to these areas (remove stray horses). These decisions were based upon the analysis completed in Wyoming BLM Environmental Assessments (EA) WY-037-EA1-039, "Wild Horse Gathering Outside Wild Horse Management Areas" and WY-037-EA4-122, "Management Changes in the Wild Horse HMAs." The EA titled "Management Changes in the Wild Horse HMAs," evaluated management recommended by the Wild Horse Herd Management Area Evaluation. These two documents were completed in 1994 after an intensive monitoring effort in the HMAs. Establishment of AMLs occurred during this public process. Adjustment of HMA boundaries occurred as well. The effect of maintaining AMLs on the horses, their habitat, and the other users of the public land was analyzed in EA# WY030-EA0-037 (January, 2000). This plan and a range of alternatives will be the subject of a specific environmental analysis that will be conducted prior to the implementation of the action described herein.

Removal of Excess Animals

The Adobe Town HMA was designated in 1994 from the Adobe Town HMA and a portion of the Flat Top HMA. Throughout this process, the AML for the HMA has been monitored and evaluated. As a result, the AML for the Adobe Town HMA is 700 horses. The current population (7/15/02 projected from inventory conducted 6/3/00) of this area is estimated to be 2200 horses. This includes 200 horses

outside of the HMA in the area known as I80 South. This is approximately 1600 more than the lower limit of 610 established for the population objective (AML) for the area and thus, an excess exists. An inventory will be conducted in June of 2002 to confirm this estimate. Gathering of excess wild horses is in conformance with Public Law 92-195 (Wild and Free-Roaming Horse and Burro Act of 1971) as amended by Public Law 94-579 (Federal Land Policy and Management Act) and Public Law 95-514 (Public Rangelands Improvement Act). Public Law 92-195, as amended, requires the protection, management, and control of wild free-roaming horses and burros on public lands.

As provided in 43 CFR 4700.0-6, wild horses are:

- a) ...managed as self-sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat;
- b)...considered comparably with other resource values; and
- c)...maintaining free-roaming behavior.

The planned action is also in compliance with the following section of the CFR:

43 CFR 4720.1 - Upon examination of current information and a determination by the authorized officer that an excess of wild horses or burros exists, the authorized officer shall remove the excess animals immediately.

In order to determine the number of horses that are excess and thus subject to removal, factors other than just the AML must be considered. It is accepted practice, when establishing the AML for a particular population of horses, to identify a range within which that population will be allowed to fluctuate. The limits of that range are known as the upper and lower limits for that AML. Removal actions are indicated when the population approaches the upper limit and designed to ensure that the population will not go below the lower limit established for it. This enables removal actions to be scheduled less frequently than would be indicated to maintain populations at a constant level.

Table 1 shows the AML, the lower limit, the Upper limit, and the current population estimate for the all of the HMAs that could be potentially affected by the gather. Also included in the table is the similar data for the adjacent area outside of the HMAs known as I 80 South. These areas are included in the table as all of these horses (along with the Sand Wash HMA which is under the jurisdiction of the Craig, [Colorado] Field Office to the south) comprise one metapopulation with enough exchange of competent breeding adults to comprise a common pool of genetic material. The metapopulation is an important consideration in evaluating the lower limit and its potential effect on the genetic viability of the population. EA# WY-030-EA0-037 contains a complete discussion of metapopulations on pages 17 and 18.

TABLE 1

AREA	AML	Lower Limit	Upper Limit	Est (7/02) Population	Excess (7/02)
Adobe Town HMA	700	610	800	2000	1400
Salt Wells HMA	365	251	450	778	527
I80 South #	0	0	0	200	200
TOTALS	1065	861	1250	2978	2127

* These horses are outside of any HMA and therefore are stray as defined by the Act

Not an HMA

Removal of Strayed Animals

The Bureau of Land Management is responsible for the welfare of wild horses, their habitat (HMAs), and adjacent areas of public and private land that are effected by the presence of wild, free-roaming horses.

EA WY-037-EA1-039, completed in 1991, specifically addressed the geographic areas in the Rawlins Field Office adjacent to HMAs and which contained horses that had become established in them through emigration from the HMAs during periods of high populations. These areas are typically more than 50% private land and not suited for designation as HMAs. I80 South is one of these areas. In addition, EA WY-037-EA0-037, completed in 2000, addressed alternative management strategies for wild horses within the Rawlins Field Office jurisdiction. The net effect of all of these individual analyses is to affirm that it is necessary to control populations within established levels and areas as prescribed by law. Maintenance of these population levels and distributions is an important first step in maintaining the healthy habitats that wild horses and other users of the public lands require. The action described in this plan will meet those requirements.

Horses that occupy the I80 South area, for the most part, have strayed from the Adobe Town HMA and will continue to do so as long as the Adobe Town population remains above the AML set for it. The most recent removal in this area removed 670 head of mares, foals, and stallions. Thirty-two stallions in small, widely dispersed groups were left and form the nucleus of the present population.

Horses that enter the I80 South area in small numbers do not typically pose an immediate threat to public safety nor private property and, therefore, may not be relocated until an actual gather is planned. Further, horses now remaining in the I80 South may be predominately male and widely-dispersed. If the June 2002 inventory confirms this, the removal of these horses may be assigned a much lower priority than the removal of the designated horses in the nearby HMA.

The planned action would limit wild horse distribution to HMAs and prevent damage to private and public lands. Establishment of HMAs occurred under the planning process, and HMAs were modified after evaluation and analysis in 1994. Refer to EA# WY-037-EA4-122 mentioned above.

RELATIONSHIP TO THE LAND USE PLAN

The planned action conforms with the land use plan terms and conditions as required by 43 CFR 1610.5-3. This action is subject to the Great Divide Resource Management Plan (RMP), approved November 8, 1990. Actions proposed in this plan are consistent with the Wild Horse Management Objective on page 41 of the RMP which states, " . . . to protect, maintain, and *control* a viable healthy herd of wild horses . . . "(emphasis added).

The action would also be in conformance with the Great Divide Herd Management Area Evaluation and the associated EA (WY-037-EA4-122). Recommendations from this evaluation were the basis for increasing AMLs from previous levels and adjusting HMA boundaries. Rangeland conditions have not changed significantly since 1994. The proposed action is consistent with all other federal, state, and local plans. The proposed action is in conformance with Appendix III of the RMP - *Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management*. No additional permits or authorizing actions are required.

RELATIONSHIP TO OTHER AREAS AND PLANNED ACTIONS

The area affected by this plan is that portion of the Rawlins Field Office south of Interstate 80 and west of WY 789. It contains one HMA, Adobe Town, which is managed by the RFO and an area outside of the HMA identified as I80 South. Determination of the AML for this HMA considered several factors. Among them was

the level at which horses began to leave the seemingly adequate forage supply within the HMA and seek space in areas outside of the HMA and the apparent relationship between the populations and distribution of horses in adjacent HMAs. This analysis resulted in the identification of the Stateline metapopulation and the horses comprising this metapopulation. (See EA# WY-039-EA0-037 for a complete discussion of metapopulations.) The Adobe Town HMA is joined on the north and west by the Salt Wells HMA, which is managed by the Rock Springs Field Office. Nearby, to the south, is the Sand Wash HMA, which is managed by the Craig, (Colorado) Field Office.

The Adobe Town HMA corresponds with all of 13 livestock grazing allotments and a portion of another. Within the HMA is one Wilderness Study Area (WSA), the Adobe Town WSA. There are important populations of pronghorn antelope, mule deer, and elk. Greater sage-grouse are also present. All of these are hunted throughout much of the HMA, as are other small game animals. In addition to their values to hunters, these animals contribute to the sense of place that is the Adobe Town area.

Within and adjacent to the Adobe Town HMA, there is both current and proposed oil and gas development and production activity. This includes 3-D seismic exploration, drilling, and production wells and facilities. This has increased dramatically in the last two to three years as production technology has improved and the price of natural gas at the wellhead increased until turning downward again in the late summer of 2001. The area encompassed by the HMA includes portions of the Continental Divide/Wamsutter II EIS, Desolation Flats EIS, Mulligan Draw EIS, and a small portion of the Creston/Blue Gap EIS. These energy development activities have a number of effects on horses and their habitat. Access is increased and horses become more acclimated to human presence. Distribution patterns can be changed as horses react to the changes in human presence and availability of water. The South Baggs EIS area is also included since there are horses in the Poison Basin area which is inside the South Baggs EIS but outside the HMA boundary. This area may require periodic wild horse removals in order to protect mule deer and elk crucial winter range.

TABLE 2 OTHER AUTHORIZED USES OF THE AREA

ADOBE TOWN HMA TABLE					
Grazing Allotment	Active Preference (cattle)aums	Active Preference (sheep)aums	Mineral Prod	Wildlife Species	Other Uses or notes
INSIDE HMA					
ADOBE TOWN		1802	yes	M-, P+, S	WSA
CONTINENTAL	2830		yes	M+, P, S, E-	
CORSON SPRINGS	1189		yes	M, P+, S, E-	
COW CREEK	1759	870	yes	M, P+, S, E-	WSA
CROOKED WASH	87		no	M, P, S, E-	
ESPITALIER	2775		yes	M, P+, S, E-	
GRINDSTONE SPRINGS		413	yes	M, S, P, E-	
LITTLE POWDER MOUNTAIN	253	1730	yes	M+, P, S, E-	Moss Rock
HIAWATHA (Maneotis) TRIDISTRICT		5865	yes	P+	Only partially within the HMA
POWDER MOUNTAIN	668	187	yes	M+, S, P, E-	Moss Rock
RED CREEK			yes	M, S, P, E-	
ROTTEN SPRINGS	767	661	yes	M-, S, P, E-	
SAND CREEK	592	2247	yes	M-, S-, E-, P+	
WILLOW CREEK		5362	yes	M-, S-, P+	WSA
ROCK SPRINGS			yes	M, S, P+, E-	WSA
OUTSIDE HMA					
South LaClede	237	3294	yes	M-, S-, P+	
Mexican Flats	1695		yes	M-, S, P+	
Mexican Graves	394	1234	yes	M-, S, P+	
South Barrel	583	195	yes	M-, S, P+	
Big Robber	1620		yes	M, E-, S, P	
Powder Rim	3867	2686	yes	M+, E+, S, P+	
Cottonwood Hill	1022		yes	M, E-, S, P	
Cherokee Trail	1000	218	yes	M, E, P, S	domestic horse use
North LaClede		939	yes	P+, S	
Poison Buttes	696		yes	M+, E, P, S	
44 Ranch	59		yes	M, E-, S, P	
South Flat Top	1592		yes	M, E-, S, P	
Big Robber Spreaders	114		yes	S	
Little Robber	250		no	M, E-, S, P	
V Spreaders	70		no	S	
Tipton	4752		yes	P+, S, M-	
South Red Desert	700 (56 horse)		yes	P+, S	
North Barrel	2930		yes	P+, M, E-, S	
Oppenheimer			yes	P, M, S, E-	domestic horse use

M-mule deer, P-pronghorn, E-elk, S-sage grouse, +=abundant, -=rare

Table 2 portrays all of the planned wild horse removal actions in the state of Wyoming for calendar year 2002 and beyond. This represents a tentative plan and may require much adjustment prior to implementation.

The Adobe Town HMA is bordered by the Salt Wells HMA for a considerable portion of its western and northern boundaries. Horses in both HMAs are part of the same metapopulation. Horses may move from one HMA to the other at any time of the year in response to a variety of pressures including, but not limited to: ongoing gathering activities, differing seasons of use for livestock, locally variable supplies of water or forage, energy exploration or development, or competition for water or forage or space. Use of the Manuel Gap, Crooked Wash, and Cow Creek traps may be modified in order to consider the movement of horses back and forth across the boundary and/or to complete achievement of the AML for the Salt Wells HMA which is tentatively scheduled for the summer of 2001 and beyond. This could also require the utilization of an additional or different trap site in an adjacent area such as the Alkali drainage west of Kinney Rim or the Corson Springs or Pine Butte areas. Relocation of horses may be employed in association with these, as well as other trap sites in the area in order to maximize efficiency and minimize stress to the horses.

WILD HORSE MANAGEMENT IN WYOMING

Wild Horse Herd Management Areas and AMLs are determined and managed by the local BLM staff on a site-specific, case-specific basis in a multiple use setting and interdisciplinary context. Local interactions are identified and considered. The needs for specific, individual removal actions are one of the products of this process.

Significant, highly-specialized resources are required to meet those removal needs and ensure that the best possible care is available for affected animals. These resources are maintained and managed at the BLM state level. A single crew, along with supporting facilities and equipment, is strategically located in Rock Springs and managed in order to be able to meet all those needs in the most efficient and cost-effective manner available. Effective and responsible use of these resources requires a high degree of coordination. The time available to complete actions is constrained and, therefore, movement of equipment during that time must be minimized in order to make good use of the time available. While some flexibility to meet changing circumstances still remains, it is extremely important to remain aware of the inherent interdependencies of the various parts of the removal process. When a specific removal action is scheduled, facility availability, personnel availability, equipment availability, and local weather trends are just part of the list of things that must be considered. Simply put, a single person or piece of equipment cannot be in two places at once. In the initial scheduling of the entire year's work for the personnel and equipment needed for completing the individual removal actions, there is some opportunity for adjusting activities to get the best possible fit. Variations in the mix of contractual services employed can increase flexibility. However, private contractors are not currently available to perform some parts of the process such as holding and processing. Once the schedule is made, however, opportunities for change are much more limited. For instance, a particular action that has been scheduled for March cannot be rescheduled for August unless the action already scheduled for August can, in turn, be rescheduled, and the facilities can accommodate any changes in numbers, mix, etc. as a result of the change. (See Table 2)

Wyoming BLM is actively pursuing its part in the national BLM strategy for achieving AML in all HMAs by 2004 and to maintain them thereafter. In order to achieve that, it is important to stay on track each year. That requires statewide planning and coordination. Table 2 shows tentative removals throughout the initial period and for the first cycle of maintenance. It also shows that the net effect of this course of action is to achieve the AMLs established for the various HMAs and then to maintain populations within the ranges established for them.

WILD HORSE MANAGEMENT IN THE BLM

Just as individual field offices in Wyoming exist within the state, Wyoming exists within the larger national setting with respect to wild horse management. Facilities similar to the one in Rock Springs, Wyoming, exist in Nevada, Utah, Colorado, Oregon, California, Arizona, Nebraska, Kansas, Oklahoma, and Tennessee. Herds of wild horses exist in ten of the western states where the public lands are and movement of horses and availability of personnel and equipment is necessarily coordinated among all of these. For instance, the successful completion of planned adoptions in the eastern United States, where there are no free-roaming wild horses has a major effect on the completion of planned roundups in Wyoming. The entire process is referred to as the pipeline and is under the overall direction of the Washington office of the BLM. In FY 2002, the pipeline will handle about 13,000 horses.

This removal action is an important part of BLM's strategy to achieve AML in all the HMAs managed by BLM by 2004.

NEPA RECORD

The entire National Environmental Policy Act (NEPA) record for this action comprises more than just EA# WY-030-EA2-007, prepared for the action described in this plan. It consists of at least the following and can include other actions which are less directly related to wild horse management activities.

YEAR	NEPA DOCUMENT	SUBJECT
1983	Divide Grazing EIS	Domestic livestock grazing vis-a-vis other uses of the public forage resource
1990	Great Divide RMP/EIS	Interrelationship of all public land uses
1991	EA WY037-EA1-039	Removal of strayed horses from areas outside of HMAs
1994	EA WY037-EA4-122	Adjustment of HMA boundaries and establishment of AMLs based on monitoring data collected since 1989
1999	EA WY030-EA9-156	Removal of strayed horses from areas outside of the Adobe Town HMA
1999	EA WY030-EA0-037	Maintaining Viable Populations of Wild Horses in Herd Management Areas of the Rawlins Field Office
1999	EA WY030-EA0-038	Wild Horse Gathering in I80N
2000	EA WY030-EA0-181	Wild Horse gathering in other areas.
2001	EA WY030-EA0-214	Wild Horse gathering in other Areas

SUBSEQUENT ACTIVITIES

In 2007 and approximately every fourth year thereafter, approximately 500 horses would need to be removed from the HMA in order to maintain the population within the range associated with the AML (approximately 610 horses is the lower limit). This would cause the average population to be 770 head. At this time, it is projected that removals after 2002 would be limited to horses five and under. This could be modified based on the then current adoption demand.

GATHER INITIATION/COMPLETION/ADJUSTMENT

For the purposes of planning and analysis, the dates for initiation and completion of this gather are assumed to be July 15 and November 30, 2002. In practice, the actual dates may be different. Due to the needs of mountain plover, greater sage-grouse, nesting raptors, pregnant mares and very young foals, this action will not begin prior to July 15. Any one or more of the following may delay the start of the gather and/or the completion: budgetary constraints, availability of personnel and/or equipment, facility capacities, local or regional weather conditions, adoption success, or animal health concerns. In addition, weather or other conditions could be expected to be variable enough to change the completion date as well. Initiation would not be before July 15, 2002, and completion could be any reasonable time thereafter. This could even include the periods before April 1 or after July 15, 2003.

ALTERNATE GATHER DATES

The opportunity to conduct this gather at another time is limited by a number of considerations. The most significant limitation is imposed due to logistical considerations and coordination amongst the various BLM jurisdictions in Wyoming. Prior to the selection of the dates in this plan, all of the anticipated needs for wild horse management personnel, equipment, and facilities in Wyoming were evaluated. Other proposed gathers, facility capacities, and availability of key personnel and other resources were all considered and tentatively allocated. The schedule reflected in Table 2 was developed. In order to achieve the Wyoming goal of attaining AML in all HMAs within the state by 2004, it is necessary to employ all available resources and utilize all windows of opportunity. In order to conduct this gather at an alternate time, the other actions scheduled at the proposed alternate time would have to be evaluated to determine the extent to which adjustments were feasible. Most often a single event could not be merely rescheduled, but rather two events would have to trade places on the schedule. Since this gather will take an entire field season to complete, rescheduling would involve the whole state and two entire fiscal years' work. In addition, delaying Adobe Town would allow for additional population increase and additional risks for resource damage. The availability of additional contract capabilities for gathering would not provide significant flexibility as facility capacity and adoption demand would remain unchanged. In this particular case, this event was determined to be the most suited to this particular time slot. The number of horses to be removed, access, and prevailing weather conditions were all considered in making the determination. In addition, it proves necessary from time to time to make internal adjustments to schedules in order to adjust to such things as weather or animal conditions. Continuation of this action in order to complete it during the periods described on page one of this plan would not constitute rescheduling.

NUMBER OF ANIMALS TO BE CAPTURED/REMOVED**TOTAL INSIDE THE HMA**

At the present time, it can be projected fairly accurately what the population will look like at gather time and given the criteria to be applied, what it

will look like after the gather is completed (Appendix A). By comparing those two, it can be projected that the removal is likely to consist of a total of approximately 1474 animals, of which 1013 will be five and under (68.7% of total removed), 141 (9.5% of total removed) aged six to nine, and 320 (21.7% of total removed) age ten and older.

SPECIAL ATTENTION AREAS WITHIN THE HMA

Since the AML was established in 1994, the wild horse population has exceeded that number in every year. Removals have been limited by budgetary and adoption-based criteria. Livestock use of the area has continued below permitted levels. As fortuitous as this may have been, it has not entirely prevented the excessive wild horse population from placing noticeable strain on some of the natural resources within the HMA. Most noticeable have been the limited desert riparian areas. Fortunately, damage has, as yet, been minimal. Several areas have been identified which would benefit from receiving growing season rest for one or more seasons following the planned removal. In order to accomplish this, the post-gather population targets in column B of Table 4 were developed. It is predicted that, prior to the next scheduled removal, horses will redistribute themselves throughout the area as indicated in Column A of Table 4. Post-gather monitoring will, among other things, document this pattern so that future removals can be planned accordingly. This could also provide the opportunity to plan vegetation treatments in coordination with planned removals in order to provide for some post-treatment management.

Specific areas identified are the limited riparian areas associated with the springs and seeps along the eastern edge of Kinney Rim and the upland pastures in the Continental and Powder Rim allotments that are included in intensive grazing management systems designed to benefit multiple users of the public lands.

OUTSIDE THE HMA

It is likely that approximately 200 horses will occupy the I80 South area at the time of the removal. As this is not an HMA, all are subject to removal. This population has grown from approximately 32 (all male) head in 1999, primarily by the mechanism of immigration from the Adobe Town HMA. At that time, 670 head were removed from this area (APPENDIX A). The current demographics of this population are not known but are estimated to be noticeably different from those within Adobe Town HMA. Trap sites at Windmill Draw, Blue Gap Draw, South Flat Top, and Cedar Breaks have previously been successfully used in this area. The final determination of trap sites to be used will be based on the numbers, distribution, and apparent demographics identified in the inventory which will be conducted in June 2002. Should the June 2002 inventory reveal that the I80 South area contains only widely dispersed, primarily male bands, it may not be targeted for removals until after all removal objectives are fully met inside the Adobe Town HMA.

HERD CHARACTERISTICS

The Adobe Town area is large and diverse and consists of several discrete subpopulations. Size and color are fairly uniform amongst the subpopulations. Fourteen colors are found in the population. Gray is the most abundant color throughout the HMA, accounting for about 40% of the population. Six colors (gray, bay, sorrel, brown, red roan, paints) account for 80% of the individuals while eight (black, white, chestnut, grulla, strawberry roan, blue roan, buckskin, and palomino) account for the remaining 20%. Appaloosa coloration is rare. So-called primitive markings are rare as are the dilute colors. It should also be noted that among bay and sorrel horses, a great deal of variation is observed in the range of basic coat colors falling into these classifications. Albino or white horses are the least common of all the recognized colors with only occasional individuals noted.

Interaction amongst the subpopulations occurs frequently and somewhat predictably and insures a continuing high degree of genetic diversity within the population as a whole.

Each subpopulation consists of a number of individual mare/foal bands with 2-12 members, each led by a harem stallion, and a number of bachelor bands of 1-10 loosely-associated males. While some bachelor associations are very longterm, others may often be more unstable. The bachelor population will typically consist of the young males that have not yet asserted themselves and older males who have had their moments of glory and are now in semi-retirement. The mare/foal bands will typically consist of some number of mares, their foals of the year, their yearlings, and perhaps some two year old fillies. Filly colts will usually stay with the band they were born into while the stud colts will be allowed to stay only until they become perceived as potential competitors by the harem stallion. He will then run them off to join the bachelor population and begin their period of waiting until they may be ready to challenge a harem stallion for control of a band. Further amalgamation of bands into loosely organized herds is variable throughout the HMA. At times, all or most of the bands in an area that share a particular water source may exhibit a high degree of tolerance for one another's presence and may appear to be a herd during much of the day as they appear to share grazing and resting areas. Under close scrutiny, the individual band structure can be identified, if necessary.

In conducting this gather, the objective will be to remove (and also to leave) entire mare/foal bands and bachelor bands so that the resulting population within the HMA will be as socially stable as possible. All horses outside the HMA will be removed, which will dictate a different approach at those trap sites outside the HMA. This will require observations on the distribution of the horses to be collected during the month of June 2002. The purpose of this special inventory will be to tentatively assign to each of these subpopulations a percentage of the total and a portion of the removal target and, conversely, a portion of the AML to be allowed to remain in that subpopulation. Table 4 will be finalized.

HMA	AML	INDIVIDUAL SUB POPULATIONS
Adobe Town	700	Corson Springs Espitalier Spring Greasewood Flats Sand Creek Willow Creek Cedar Breaks Hangout Continental Monument Valley

TRAP SITES AND MANAGEMENT

In order to accomplish this, as many as 10-15 individual trap sites will be employed. The exact number and location will be selected after consideration of the inventory to be conducted in June of 2002. The following list is tentative and identifies a potential trap site, the sub population(s) it would serve, and any special considerations anticipated at that site.

ADOBE TOWN TENTATIVE TRAP SITES		
TRAP SITE	SUBPOPULATION(S)	NOTES
Cedar Breaks	Cedar Breaks Sand Creek	Herding from I80S
Kinney Rim	Espitalier Spring Greasewood Flats Corson Springs	Coordinated with Salt Wells Herding from south
Cow Creek HQ	Espitalier Spring Greasewood Flats	Herding form WSA
Manuel Gap	Greasewood Flats Corson Springs	Coordinated with Salt Wells
Rotten Springs	Sand Creek Cedar Breaks	
Crooked Wash	Espitalier Spring	
West Sand Creek	Willow Creek Sand Creek	
East Sand Creek	Sand Creek Cedar Breaks Continental Hangout	Herding from Continental and Hangout
Horseshoe Bend	Willow Creek Sand Creek	Herding from WSA
Windmill Draw	Willow Creek	
Shell Creek	Espitalier Springs, Corson Springs, Greasewood	
Willow Creek	Willow Creek, Sand Creek	

The net effect will be that approximately 1700 horses will be captured in order to remove 1600 head and leave a viable herd of 610 horses plus unweaned foals inside the HMA and none outside. This would indicate the desirability of averaging about 145 head captured per week and eventual shipment of the same number from the facility in Rock Springs. At this rate, horses would be able to spend the necessary three weeks in the Rock Springs facility prior to moving to other locations.

One objective of the removal will be to maintain the traditional, longterm distribution pattern within the HMA except as indicated for resource management reasons. The following table (Table 4) reflects the numbers of horses that, if left in each grazing allotment, would equal the 10-yr average distribution of populations ranging from 417 to 909 and averaging 666 for the period of 1983 to 1993 during the growing season (Column A). In Column B the adjusted target distribution for this action is shown. The adjusted target is designed to provide additional relief from grazing pressure by horses to some specific sites within the respective allotment for an indeterminate period of time as horses redistribute themselves throughout their available habitat. In each case where a resource need suggested a temporary adjustment in the grazing use by horses, specific areas were identified that could accommodate a concurrent increase from those ten-year average levels represented in Column A. Those adjusted targets were then compared with the present population for that particular area to ensure that the action would, in all cases, at least effect a reduction in the adverse impacts of use made by horses. Measurement of the success in obtaining this objective will be taken during the next regular inventory completed after the removal is complete. The maintenance gather tentatively planned as 450 head in 2007 will be employed to reestablish any desired distribution patterns that have not been achieved naturally by that time. NOTE: This same data is available for the winter, and should the inventory be conducted during the winter period, success can be evaluated with equal confidence. As any inventory may take place after additional partuition/recruitment/immigration, measures may be proportional rather than exact. In addition, consideration will be given to slight modifications of that distribution in order to provide additional growing season rest for specific resources under stress or to provide opportunity to collect some specific monitoring data.

HELICOPTER HERDING/FENCE MODIFICATIONS

Due to the size and remoteness of the Adobe Town HMA, it will prove desirable to employ some helicopter herding and fence modification in conjunction with the gather operation. These techniques will be employed where suitable trap sites cannot be located close enough to all concentrations of horses identified in the inventory. In order to avoid driving horses too far in a single run and the need to build any additional access roads, the helicopter will be employed to herd some bands closer to the trap site(s) in order to break up the distances the horses will have to travel at one time. In other words, horses in the Willow Creek Rim area who would be +/- 12-15 miles from the Horsehoe Bend trap site over rough terrain might be herded 7-10 miles northwesterly one afternoon and then left to rest overnite where they could be picked up the next morning and brought the last few miles to the trap. This helicopter herding would be conducted at a leisurely pace determined by the weakest members of the band. Rather than chasing the horses toward the trap, the helicopter pilot will just keep a little pressure on them to make the horses think that they are escaping an unwelcome source of pressure in their home territory and slipping off to quieter places. At least one wrangler with a saddle horse will be available for each herding operation. The wrangler(s) will maintain radio contact with the helicopter pilot and be available to provide necessary support such as rescuing foals that separate from the moving bands.

Around the periphery of the HMA and in the adjacent I80 South area, there are several fenced pastures. If these pastures are found to contain horses in the

June 2002 inventory that need to be removed, it may prove to be more efficient to employ the helicopter to herd horses out of these relatively small areas into the adjacent areas prior to capturing them, rather than building additional traps within these areas for limited use. When the bands to be relocated contain foals that are not yet fence-wise, sections of fence of about 100 feet are removed and small wings constructed to funnel the bands through these spots. When the bands do not contain young foals, existing gates and trails can often be successfully employed for the necessary relocation.

When horses are herded toward traps in unfenced areas, they will be captured and removed the day immediately following the herding. When they are herded out of fenced pastures, they may be captured and removed the next day or allowed time to settle themselves in the new surroundings. Thus, most herding will take place in the early part of the week in order to avoid horses having time to return to their traditional home ranges and defeat the objectives of herding. Herding will usually be conducted in the early part of the day to avoid heat stress to the horses and undesirable or unsafe flight operations conditions for the helicopter.

A "TYPICAL" WEEK IN THE OPERATION

MONDAY: Herding in open areas, capture and removal, recon
TUESDAY: Herding in open areas, capture and removal, recon
WEDNESDAY: Capture and removal
THURSDAY: Capture and removal
FRIDAY: Trap construction, fence modification, herding in fenced pastures, recon

The use of multiple trap sites will allow adjustments that may prove desirable such as avoiding areas immediately following heavy rains. Weekend operations will not ordinarily be undertaken. They may, however, prove desirable in order to accommodate unusual weather conditions, to keep up with periodic goals, to match field operations with corral conditions, etc.

ADOBE TOWN HMA DISTRIBUTION TARGETS					Table 4
Grazing Allotment	Column A Historic @ Growing Season Distribution	Column B Target Post Gather Distribution	Column C # 2002 Estimated Population	Column D Estimated Removal Need	NOTES
ADOBE TOWN	31	50(c)	112	62	
CONTINENTAL	36	35(a)	152	117	
CORSON SPRINGS	26	(d)			
COW CREEK	68	70(b)	325	255	Riparian areas
CROOKED WASH	16	0	20	20	Riparian areas
ESPITALIER	52	0	230	230	Riparian areas
GRINDSTONE SPRINGS	16	20	10		
LITTLE POWDER MOUNTAIN	21	21	6		
MANEOTIS CROOKED WASH Hiawatha TD	5	0	20	20	
POWDER MOUNTAIN	5	0	6	6	intensive grazing mgmt
RED CREEK	36	36	89	53	
ROTTEN SPRINGS	31	60	65	5	
SAND CREEK	31	60	29	0	
WILLOW CREEK	83	80	308	228	
ROCK SPRINGS	150	175	353	178	
TOTAL	607	607	1725#	#1174	

@ converted to a portion of the Lower limit of the AML(number) which represents that allotment's share of the total area's contribution to the population during the period 1983-94

* + unweaned foals

To be revised to reflect completion of inventory in 6/02

(a) In East pasture only

(b) below Skull Creek Rim

(c) In northern portion of allotment

(d) part of Rock Springs below

SELECTIVE REMOVAL

It has been the BLM's policy since 1992 not to remove horses from the public lands for which no adoption demand exists. Horses captured for which no adoption demand exists have historically been returned to the HMA where they were captured. Selective removal is understood by some as only this practice.

While this practice can be employed under certain circumstances with no adverse effects on the longterm viability of the herd, in other cases, the practice alters age and sex distributions significantly. While the exact point of demarcation is herd-specific, generally when populations must be reduced by more than 50% and when gather intervals must be more frequent than approximately every third or fourth year, adoption demand-based criteria can conflict with herd health and viability requirements. The Adobe Town population has been directly affected by an age specific removal conducted in the nearby I80 South area in 1999 and indirectly by several removals conducted in the nearby Salt Wells HMA. In the I80 South removal, unadoptable horses captured there were released into the Adobe Town HMA. For several years now, captured males aged six and over have been returned to the range in the Salt Wells HMA. But, in truth, the term selective removal is properly used to identify a group of practices which employ anything rather than random occurrence as a criteria in identifying which horses from a particular population will be gathered and once gathered, will be removed or returned to the range. The age and sex-specific removal policy that has been employed in this area for some time now is being modified in order to facilitate the BLM goal of reaching AML in all HMAs by 2004. At the same time, a viable population must remain on the range. During this PMA, captured horses will be removed regardless of age. Entire, intact social groups will be removed or left in reaching AML. This will constitute as near to random removal as is possible under field conditions. The only way to make removals more random would be to expend the extra effort and expense necessary to capture every horse before selecting any animals for removal. Horses aged five and under will be placed in the adoption program. Horses six and older will be placed in one of the BLM maintained sanctuaries. Horses initially placed in a sanctuary and foals born in a sanctuary may be subsequently adopted if qualified adopters are found for a particular type of horse. Some few older horses may be returned to the range. This could include a few foals if, for instance, an aged mare with one eye or a non-life-threatening injury who had a foal not yet old enough to be weaned, were designated for return. In general color will not be used as a selection criteria; however, individuals representing the truly rare characteristics (Appaloosa, primitive markings, albino) may be left along with their bands if determined to be feasible at the time. Any horses that are captured and subsequently returned to the range will be visibly marked in order to facilitate monitoring of distribution, movement, etc. A number of special placement options will be available to BLM managers once horses have been removed from the range. These include halter training and saddle training programs. In 2007, it is anticipated that a PMA will be conducted which will remove approximately 500 horses in order to maintain the population within the range established for it. For that PMA, it is likely that the Selective Removal policy will again be modified and only horses for which an adoption demand exists will be removed. In 2006, the population would most likely be approximately 75% aged five and under. In order to maintain AML it would have to be reduced by approximately 35%. Thus, it would be quite feasible to limit removals to animals aged five and under and still maintain the population in a healthy, productive state. Quite likely, those population objectives could be achieved by removing yearlings, two-year-olds, and some males aged three, four, and five. Colts of the year and all nursing mares could be left. The effect on the population would be positive. All age classes would continue to be present. The percentage of females in the population would increase slightly and the parturition and recruitment rates would increase proportionately. Prior to initiation of these subsequent activities, a detailed plan will be prepared which will identify important objectives for the maintenance of the longterm health of the herd. It will also be possible, if indicated, to adjust the sex ratio and,

indirectly, the reproductive rate by removing unequal numbers of males and females. Appendix A consists of a number of probable age/sex distributions for the Adobe Town HMA both pre- and post-gather. All of these were developed using the 670 horses captured in 1999 as a representative sample of the population. Then the baseline was established by applying that sample plus the horses turned back into the population and extrapolating those results to the current inventory levels.

DATE(S) OF PMA AND ANY DATE RESTRICTIONS OR ALTERNATIVE DATES

This action is scheduled to start on or about July 15, 2002, and end on or about November 30, 2002. It will not be conducted during the period April 1-July 15. The scheduled period contains 18 full weeks. During a typical week, trapping would take place on Monday thru Thursday. Friday would be the day to construct traps and make necessary modifications to fences and any other preparation. This would also enable processing of horses in Rock Springs to keep up with the flow. If wind or other conditions made it necessary, in order to keep on schedule, trapping could take place throughout the week and weekend. (See page 17, A "typical" week, for more information)

Any one or more of the following may delay the start of the gather and/or the completion: budgetary constraints, availability of personnel and/or equipment, facility capacities, local or regional weather conditions, adoption success, or animal health concerns. In addition, weather or other conditions could be expected to be variable enough to change the completion date, as well. Initiation would not be before July 15, 2002, and completion could be any reasonable time thereafter. This could even include the periods before April 1 or after July 15, 2003.

TRAPS

Trap site selection is a process which begins with the identification of areas and conditions for the location of traps and often ends just a few days before the actual PMA with the final selection of the exact location and its final configuration.

a. General

General location/exclusion criteria are identified by the field office staff in the preliminary planning for the specific PMA. Such things as access to the trap site by the transport vehicles, raptor nesting, seasonal wildlife restrictions, and other permitted activities result in general areas in which specific traps may be located or must not be located and steps required to finalize trap site selection (e.g., cultural, landowner permission). Location of fences that may restrict horse movement and typical distribution of animals at the proposed time are also noted.

b. Specific

Specific trap site selection will be made by the officer-in-charge, normally the wrangler foreman, and the trap will be located on the site that will function best and produce a minimum of impacts. Required specific clearances (e.g. cultural, T&E) will then be obtained. Personnel working at the trap sites will inspect the area within the wings and the approach to the wings to insure that dangerous obstacles or obstructions are identified and alleviated. (Reference aviation plans.) For trap construction, refer to the statewide plan/standards. Arrangements for fence modifications, gate openings, closings, herding of livestock, water availability, etc. will be finalized at this point.

The weather conditions and current location of the horses will be the final determining factor in the number and location of traps utilized. Initially, it is estimated that 10-15 trap sites will be utilized. Other sites may be

selected if conditions warrant.

When a trap site has been initially selected for use, it will be reviewed in accordance with the practices prescribed in the Handbook and analyzed in EA# WY-030-EA0-037. This includes consultation under Section 7 of the Endangered Species Act and Section 6 of the Historic Preservation Act.

c. Trap Construction, Management

Trap construction is a complex science/art. Years of practice, observation, and experience have yielded the materials and methods presently employed. The corrals themselves are constructed of portable steel panels. The wings are jute fabric on steel posts. The wings are usually reinforced with plastic snow fence where they join the trap. The loading chute is portable and moved from trap to trap. Trap construction is described in detail in the Wyoming Supplemental Program Guidance. This operation will employ, as do most, multiple trap sites. At least two, and sometimes as many as four, traps may be in place and in alternate use at the same time. Daily operations may move around amongst those sites based on distribution of horses, localized weather and site conditions, or other uses and events. Rather than "using up" one site before moving to another, this helps minimize stress on the horses and other animals. Traps will typically be constructed and removed within a few weeks of their use and will rarely remain in place for more than a few weeks.

CAPTURE METHOD

A contract helicopter will be utilized in conjunction with BLM wranglers on horseback. Parada or Judas horses may also be employed where determined desirable by the head wrangler. A few horses may be roped when employing this combination of practices. Roping will not be the primary method of capture but will only be employed by experienced personnel in appropriate circumstances.

Feed or water trapping will not be employed because of the widespread availability of forage and water sources in the gather area and nearby. The presence of wildlife and livestock in the area also precludes the use of feed or water trapping for this action.

TRANSPORTATION

Captured animals will be transported to the BLM facility in Rock Springs via the Standard Road, Sand Creek Road, Bitter Creek Road, Wamsutter Road, Eureka Headquarters Road, Wyoming 789, and Interstate Highway 80. Equipment and handling will be in accordance with the instructions contained in the Handbook.

PRACTICES PLANNED TO MINIMIZE STRESS TO CAPTURED ANIMALS

Standard operating procedures will be employed which include the following practices:

GATHERING

The horses will be allowed to set the pace until they are within 1/4 mile of the trap. If bands must be brought long distances, they will be allowed time to rest along the way if they indicate a need. Horses may be brought to the trap in stages which may include separate days (see section on herding) if difficult terrain or obstacles warrant. Horses that run more than five miles at once will do so of their own choosing.

CAPTURE AND HANDLING AT THE TRAP SITE

Handling at the trap site is carefully monitored to insure that aggression and injury are kept to a minimum. The decision on when and how to load is determined by the behavior of the captured animals. Individuals or bands may be separated, if necessary. The long years of experience in trap construction have resulted in the use of materials such as jute, plastic snowfence, and panels of particular height and spacing and methods including pen, gate, alley and chute design and use which minimize the horses' and wranglers' exposure to injury. When members of the public view the gather operation, they are required to occupy specific areas and conduct themselves so as to avoid additional stress to captured horses and to protect the success of the operation.

TRANSPORTATION

In order to minimize stress, captured animals are loaded and transported within a short time of capture. Captured animals are rarely held overnight at the trap site. The capture operation is tailored to insure that no more animals than can be transported the same day are captured. The transport vehicles are continuously inspected for safety and adequacy and provide for separation in groups of 12 or less. When warranted, foals may be transported separately.

FERTILITY CONTROL

This plan does not include the use of fertility control in an operational mode. Fertility control vaccines may be administered to selected animals after their arrival at the Rock Springs facility in order to support approved research projects. This plan will be amended or a separate plan prepared prior to any operational application of fertility control in the field. Fertility control has not been shown to be an effective tool in achieving shortterm population reductions. Fertility control may be employed as part of the PMAs anticipated for 2007 and beyond. It may prove desirable to suppress reproductive rates after attaining AML. Since subsequent PMAs will employ different processing techniques than are currently employed, it could prove feasible to treat targeted females with a two-year vaccine when gathered. This could effect a significant shortterm decline in reproduction and a resultant decline in the number of animals to be removed. For instance, targeted administration of fertility control agents during the 2007 PMA could either reduce the number of animals to be removed in 2011 or delay the removal that would otherwise be necessary in 2011 until 2012 or later.

VETERINARIAN

The US Department of Agriculture/Animal and Plant Health Inspection Services (USDA/APHIS) will be consulted pursuant to the Memorandum of Understanding (MOU) between the agencies. This will result in the following:

Plan Consultation

USDA/APHIS has reviewed BLM practices in general and will continue to do so. This plan is reflective of that process. Additional specific recommendations as to specific practices may be generated at any time during the year and incorporated into existing practices.

On-Site Consultation

For this particular action, USDA/APHIS will provide on-site consultation. This will consist of at least one site visit during the period of April 1 to July 1, 2002, for the purpose of inspecting animal condition. It may also include additional periodic visits to the trap site(s) or facilities for the purpose of additional inspection/observation. The need for these additional visits will be determined by the USDA/APHIS vet who conducts the first site visit.

On-Site Services

The USDA/APHIS vet who completes the initial on-site visit will determine the need for and availability of on-site services.

On-Call Services

On-call services are available through the Rock Springs Wild Horse Facility Manager's existing contractual arrangements with local practitioners.

EUTHANASIA OF SICK, LAME, OR INJURED ANIMALS

Sick, lame, or injured animals will be euthanized at the trap site by trained, authorized personnel only, in accordance with the pertinent regulations. Remains will be disposed of at the site in accordance with established procedures.

ORGANIZATION

The team consists of the:
Rock Springs Facility Manager
The Rock Springs gather crew
The contract helicopter pilot and his designated service personnel
The BLM helicopter manager
The Rawlins Field Office liaison

CONSULTATION AND COORDINATION

a. Government Agencies.

The US Fish and Wildlife Service has been regularly consulted in accordance with section 7 of the Endangered Species Act, as amended, and will be consulted in accordance with procedures outlined in the Handbook.

b. Public Input.

Notice of this action and the availability of this plan will be published in the Federal Register on or about January 31, 2002. This plan and accompanying NEPA analysis will be available for review on request.

c. Wyoming Game and Fish Department.

The WGFD is regularly consulted for its input concerning wildlife populations and needs.

d. Other RFO Program Specialists.

This plan and the accompanying environmental analysis is developed utilizing an interdisciplinary team approach. The team consists of a number of specialists who review the overall objectives against their individual program needs and provide appropriate inputs.

PUBLIC VIEWING OF THE OPERATION

Commercial photographing or videotaping for other than personal use may be approved by the authorized officer provided that timely and appropriate application is made pursuant to 43 CFR 2920.

Media representatives may make arrangements to observe and/or record events by contacting Mary Apple at 307-328-4329.

Interested members of the public may request to view gather operations by contacting the Rock Springs Facility Manager. If the requests can be accommodated without compromising the safety or integrity of the operation, the Rock Springs Facility Manager will arrange for the viewing. Captured

animals may be viewed at the facility in Rock Springs, Wyoming which is generally open to the public during regular business hours.

Once begun, gather operations are subject to daily adjustment and modification and the opportunity for viewing is difficult to predict and manage. Trap sites are selected with a number of purposes in mind. Whether or not the site presents viewing or photographic opportunities is not one of those primary considerations.

BRANDED AND CLAIMED ANIMALS

Any branded horses captured will be transported to the Rock Springs facility where they will be processed in accordance with state laws regarding estray livestock as provided for by the Act.

Approval/Signature.

I have reviewed the capture plan for the Adobe Town HMA and the I80 South area for FY 2002. I find it to be complete.

s/Kurt Kotter Date December 12, 2001
Rawlins Field Manager